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feed seed fertilizer REPORT 1979

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THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF FOOD AND AGRICULTURE
Frederic Winthrop, Jr., Commissioner

UNIVERSITY OF MASSACHUSETTS
AGRICULTURAL EXPERIMENT STATION
William J. Mallon, Acting Director

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INSPECTION OF COMMERCIAL FEEDSTUFFS 1979

by Feed Laboratory Staff

of the Feed, Seed,Fertilizer Laboratory

West Experiment Station, Amherst, Mass. 01003

UNIVERSITY OF MASSACHUSETTS
COLLEGE OF FOOD & NATURAL RESOURCES
AGRICULTURAL EXPERIMENT STATION

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1979 Feeds
Brands Substantially Complying with Guarantees

Manufacturer & Brand	Samples Analyzed
Agway Incorporated	
Agway Trim For Horses	1
Agway Performance for Horses	2
Agway Respons Horse Fd ...	1
Agway Sho-Dev for Horses..	1
Agway Mare & Foal Horse Fd	3
Agway Bloom for Horses	1
Agway Complete Horse Feed Pellets	4
Agway Pacemaker Starter ...	2
Agway Choice for Horses	11
Agway Nu-Cashmaker 16.....	12
Agway Nu-Cashmaker 15	3
Agway 48% Solvent Extracted Soybean Meal	4
Agway Big Red Special Rabbit Pellets	11
Agway Calf Grower	1
Agway 37% Hog Concentrate ..	5
Agway Solvent Extracted Hominy Feed	4
Agway Milkmaker 16	3
Agway Early Market Lamb Pellets	3
Agway Fulpail	1
Agway Calf Grower	1
Agway Hog Super Concentrate	2
Agway Pork Finisher	2
Agway Broiler Finisher	1
Agway Complete Developer ...	1
Agway Buxmix Crumbles	2
Agway Big Red Dog Food	1
Agway Dicalcium Phosphate ...	1
Franklin 16	1
Charles River Guinea Pig Formula	1
Charles River Rat Mouse Hamster Formula	1
Agway Pig Starter Pellets ..	2
Agway Top Dress Pellets	2
Agway Ratio-Right 500-16 ...	13
Agway Ratio-Right 501-16 ...	8
Agway Ratio-Right 600-15 ...	1
Agway Ratio-Right 401-20	1
Agway Ratio-Right 400-20 ...	7
Agway Ratio-Right 4500-20 ..	4
Agway Complete Breeder 16...	1
Agway Complete Grower	1
Agway Layer 16	6
Agway Inc. (cont'd)	
Agway High Layer 1000 ..	21
Agway High Layer 1100+ .	4
Agway TCR I Total Calf Ration	17
Agway TCR II Total Calf Ration	11
Agway Gestating Swine Feed Pellets	12
Agway Squealer Pellets .	7
Agway 14 Hog Feed	24
Agway 16 Pig & Sow Feed	14
Agway Game & Turkey Grower	11
Agway Game & Turkey Finisher	10
Agway Game & Turkey Starter	6
Agway Game & Turkey Breeder	1
Allied Mills Incorporated	
Wayne Lab-Blox	1
Wayne Guinea Pig Mash ..	1
Blue Seal Pork Maker Mash	1
Barber & Bennett Inc.	
Saratoga Horse Pellets ..	2
Fort Orange Horse Feed ..	2
Fort Orange Complete Horse Feed	2
Ranger Horse Feed	1
Fort Orange 40% Feeding Ration	1
Fort Orange Dog Food	1
Fort Orange Pig Starter Pellets	2
Fort Orange Pig & Hog Feed	4
Fort Orange Complete Rabbit Pellets	3
Fort Orange Mash Grower..	5
Fort Orange Chick Starter	3
Fort Orange 17% Automatic Egg Pellets	4
Fort Orange Automatic Egg Crumbles	4
Fort Orange Automatic Egg Mash	4

1979 Feeds
Brands Substantially Complying with Guarantees (Cont'd)

Manufacturer & Brand	Samples Analyzed
Barber & Bennett Inc. (Cont'd)	
Fort Orange 16% Dairy Pellets	1
Beacon Milling Company	
Beacon Laying Mash	1
Beacon Lacto Pels 20 ..	2
Beacon Lacto Pels 16 ..	2
Beacon Hog Feed Pel. ..	1
Beacon Excel 16 Pel....	1
Beacon Hog Feed Mash ..	2
Beacon Classic Horse Feed	1
Bernardston Grain Company	
Excel 16% Dairy Ration..	2
Excel Laying Mash	2
Excel Fitting Ration....	2
Horse Feed With Molasses	2
Starter & Grower Mash ..	2
Carnation Company	
Red Rose Egg Maker	2
Red Rose Double Duty Rabbit Pellets	1
Red Rose Hog Finisher ..	1
Red Rose Rabbit Pellets..	1
Central Soya Co.	
Central Solvent Extracted Dehylled Soybean Meal	1
Corn Products Co., Int., Inc.	
Peanut Hearts	1
Eight-in-One Pet Products Inc.	
8-in-1 Guinea Pig Treat	1
8-in-1 Cnary Grains & Greens	1
8-in-1 Parakeet Vitalizer Treat	1
Farm Bureau Assn.	
Farm Bureau Turkey Starter	2
Farm Bureau Track & Field	1
F.B. Rabbit Food	1
F.B. 14% Pig Grower	2
F.B. Pig Starter & Grower	1
F.B. AP 20% Dairy Pellets	1
F.B. 15% Dairy Pellets ..	1
F.B. 16% Dairy Pellets ..	1
Flory Milling Company	
Complete Horse Pellets ..	1
Sweet 16 Special Dairy Pellets	1
Rabbit Pellets	1
Grow & Egg Complete Mash	1
F.M.C. Scratch Feed Mix .	1
Hog Feed Mash	1
G&D Feed Company Inc.	
Game Bird Starter	2
PDG Pullet Developer	2
PDG Pullet Grower	1
PDG Pullet Starter	1
Pigeon Feed Pellets	1
16% Layer Feed Pellets ..	2
Broiler Roaster Pellets .	2
Horse Feed Pellets	3
Rabbit Pellets	1
16% Fitting Ration	1
Guinea Pig Pellets	1
Super 16 Dairy Feed	2
PDG Fitting Ration	1
Hog Feed Pellets	2
Geisler Pet Products Inc.	
Geisler Cat Goodies	1
Geisler Parakeet Seed	1
Geisler Canary Conditioner Food	1
Geisler Bird Minieral Mix	1
Geisler Hamster Food	1
Geisler Finch Food	1
Geisler Gerbil Diet	1
Geisler Guinea Pig Pellets	1
Geisler Medicated Food ...	1

1979 Feeds
Brands Substantially Complying with Guarantees (Cont'd)

Manufacturer & Brand	Samples Analyzed
The Hartz Mountain Corp.	
Longlife Hi-Pro Min Staple Flake Food for Goldfish	1
Longlife Pool Fish Fd	1
Hills Divison Rivianna Foods	
Hills Science Diet Canine Maintenance Dog Food	1
International Multifoods Corp.	
Blackhawk Wheat Bran with Ground Wheat Screenings	3
Blackhawk Wheat Middlings with Ground Wheat Screenings	1
Jays Import & Export	
Season Flake Staple Food for Tropical Fish	1
Kaybee Products Inc.	
Kaybee Rabbit Pellets	1
LaCrosse Milling Co.	
Race Horse Oats	1
Loft Kellog Inc.	
Kellog's Petamine Bird Diet	1
Kellog's Budgimine Bird Diet	1
Martin's Feed Mills Inc.	
Bench & Field 20 Dog Food	1
Bench & Field 26 Dog Food	2
Bench & Field Puppy Food	1
Merrimac Farmers Exchange	
Merrimac Layer 13	1
Merrimac 13% Hog Feed	1
Merrimac 14% Fitting Ration	1
October Farms Feeds	
October Farms Layer Mash	2
October Farms Layer Crumbles	2
October Farms Layer Pellets	2
October Farms Sweet Feed	1
October Farms 12% Winter Sweets	2

Manufacturer & Brand	Samples Analyzed
Old Mother Hubbard Dog Food Co.	
OMH Puppy Food	1
OMH Kibbled Biscuits	2
OMH Puppy Meal	1
OMH Beef Flavor Dog Bone Biscuit	1
OMH Cheese Flavor Dog Bone Biscuits	1
OMH Charcoal Dog Bone Biscuits	1
OMH Assorted Dog Bone Biscuits	1
OMH Small Dog Bone Biscuits	1
OMH Large Dog Bone Biscuits	1
OMH Kibbled Biscuits Dog Food	2
OMH Beef 2 Beef By Products	1
OMH Chicken Dinner for Dogs	1
OMH All Breed Ration	1
OMH Liver Dinner for Dogs	1
OMH Beef Chunks for Dogs	1
OMH Beef Tribe for Dogs	1
Ralston Purina Company	
Purina Chick Starter	3
Purina Chick Growena	4
Purina Pig Startena	5
Purina Chick Starter Grower	1
Purina Hog Finisher	3
Purina Pork Finisher	2
Purina Layena	8
Purina Turkey Growena	5
Purina Turkey Startena	4
Purina Trout Chow	2
Purina Gamebird Startena	2
Purina Farm Blend Hog Chow	2
Purina Turkey Finisher	1
Purina Turkey Marketer	2
Purina Rodent Lab. Chow	1
Purina Complete Sow Chow	1
Purina Calf Grower	1
Purina Guinea Pig Chow	1
Purina Duck Growena	1
Purina Checkerboard Dairy 16	1
Purina Booster Chow Finisher	2
Purina Omalene	4
Freshstart D&H Course Mix	1
Purina Horse Chow Checkers	8
Purina Horse Charge	2
Purina Pigeon Chow Checkers	1
Purina Game Bird Breeder	2
Purina Rabbit Chow Checkers	8
Purina Pig Growena	6

Brands Substantially Complying with Guarantees (Cont'd)

Manufacture & Brand	Samples Analyzed
Tetra Werke Der Rer Nat.	
Tetra FD Menu 4 in 1 Blend	1
Tetra Menu Tropical Fish Blend	1
Tri Mutual Inc.	
Grade A Nursing Formula	1
Tri-Save a Mg Milk Replacer	1
United Cooperative Farmers Inc.	
Oct. Farms Sweet Feed	1
U.C.F. Harmony Feed ..	1
Liz-Whiz Complete Feed for Horses	4
UCF Turkey Finisher ..	3
UCF Turkey Grower	7
UCF Calf Grower	2
UCF 16 Dairy Pellets..	6
Farm Bureau 16 Dairy..	2
UCF Hog Ration	5
UCF Hog Feed	5
UCF Pig Starter	1
F.B. Brand Pig Starter & Grower	2
F.B. Brand 14% Pig Grower	4
F.B. Complete Horse Feed Pellets	1
UCF Fit & Show	1
UCF Pride Pellets	12
UCF Hog Extender	3
UCF Milk Replacer	2
F.B. Milk Replacer for Calves	1
UCF Sheep Pellets	1
UCF Whole Oats	5
UCF Crimped Oats	1
UCF Scratch Feed	1
UCF 16 A.P. Pellets ..	4
UCF Layer 16 Pellets .	15
October Farms Layer Pellets	2
UCF 20 A.P. Pellets....	1
UCF Starter	4
F.B. Chick Starter ...	1
UCF All Mash Grower ..	8
UCF Soybean Meal	2
UCF 16 Rabbit	3

Manufacturer & Brand	Samples Analyzed
Triumph Mgt Industries Inc.	
Triumph Dog Biscuits	1
United Coop. Farmers Inc. (Cont'd)	
UCF Horse Bits	3
F.B. Rabbit Food	3
UCF 18 Rabbit Pellets	4
Ventura Grain Company	
Every Day Chick Starter	1
Every Day Horse Feed	1
Every Day Hog Feed	1
Every Day 16 Dairy	1
Every Day Complete Layer ...	1
H.K. Webster Co.	
Blue Seal Rabbit Pellets	14
Blue Seal Hutch Pels	12
Blue Seal Breeder Pellets ..	3
Blue Seal Layer Mash	10
Blue Seal Layer Pellets	11
Blue Seal Grower Mash	9
Blue Seal Turkey Grower	6
Blue Seal Grower Pellets	6
Blue Seal Fat & Finish Pel...	6
Blue Seal Charger Horse Feed	1
Blue Seal Stampede Horse Fd..	2
Blue Seal Strider Horse Feed	5
Blue Seal Canter Horse Feed ..	6
Blue Seal Trotter Horse Feed	15
Blue Seal Pork Maker	12
Blue Seal Pig & Sow Pellets .	18
Blue Seal Calf Starter	3
Blue Seal Milk Maker 16	10
Blue Seal Milk Maker 20	3
Blue Seal Natural 40	1
Blue Seal Hi-Test 16	1
Blue Seal Energizer 20	1
Blue Seal Coarse 16	1
Blue Seal Song Maker	1
Blue Seal Scratch Feed	1
Blue Seal Race Horse Oats	1
Blue Seal Wheat Middlings ...	1
Blue Seal Soybean Meal	2

Brands Not Confirming to Guarantees 1979

Manufacturer & Brand	Protein Guarantee	Protein Found
Agway Incorporated		
Agway Turkey Starter Crumbles	28.0	25.6
Agway Buxmont 40 Pellets	40.0	37.9
Agway Buxmont 40 Pellets	40.0	36.1
Agway Buxmont 40 Pellets	40.0	38.6
Agway Buxmont 40 Pellets	40.0	38.9
Agway Broiler Marketer	18.0	15.2
Agway Gestating Swine Feed	14.0	12.4
Agway 37% Hog Concentrate	37.0	35.1
Agway 37% Hog Concentrate	37.0	22.3
Agway Wheat Bran	14.0	10.6
Agway Ratio Right 400-20	20.0	17.4
Agway TCR II Total Calf Ration	17.5	15.0
Beacon Milling Company		
Beacon Lacto Pels 20	20.0	18.4
Beacon Hog Feed	13.0	11.8
United Coop. Farmers Inc.		
UCF Rabbit Pellets	16.0	14.3
UCF Rabbit Pellets	18.0	15.7
F.B. Rabbit Food Pellets	18.0	16.4
F.B. Rabbit Food Pellets	18.0	16.3
UCF Rabbit Crumbels	18.0	16.3
UCF Rabbit Pellets	16.0	14.6
UCF Rabbit Food Crumbles	18.0	16.9
F.B. Hog Supplement	36.0	34.8
UCF Layer 16 Pellets	16.0	14.9
UCF 20 Dairy Pellets	20.0	18.8
F.B. 40 Dairy Supplement	40.0	36.9
UCF Calf Grower	18.0	16.6
UCF Turkey Finisher	18.0	16.5
F.B. Turkey Starter	28.0	26.9

Brands Containing Vitamins

Manufacturer & Brand	Vitamins	USP units or mg/lb Guarantee	Found
Agway Inc.			
Agway Blue Label Milk Replacer	A	20,000	20.700
Agway Blue Label Milk Replacer	A	20,000	19,500
Agway Red Label Milk Replacer	A	20,000	24,244
Agway Blue Label Milk Replacer	A	20,000	19,522
Agway Respond Complete Horse Feed	A	4,000	4,200
Barber & Bennett Incorporated			
Fort Orange Pig Starter Pellets	A	4,500	3,972
Fort Orange Pig Starter Pellets	A	4,500	4,430
Fort Orange Pig Starter Pellets	A	3,800	4,200
Fort Orange Pig Starter Pellets	A	3,800	3,784
Tri-Mutual Inc.			
Grade A Nursing Formula...	A	16,000	17,434
Tri Save A Pig Milk Replacer	A	36,000	40,000
United Coop. Farmers Inc.			
UCF Milk Replacer	A	15,000	16,562
UCF Milk Replacer	A	15,000	17,434
F.B. Dairy Supplement	A	12,000	12,120
H.K. Webster Company			
Blue Seal Dairy Maid	A	30,000	30,800
Blue Seal Dairy Maid	A	30,000	26,000

*WITHIN TOLERANCE

Brands Containing Drugs

Manufacturer & Brand	Drug	Guaranteed %	Found %
Agway Incorporated			
Agway Blue Label Milk Replacer	Oxytetracycline	100 g/T	107 g/T
Agway Blue Label Milk Replacer	Oxytetracycline	100 g/T	107 g/T
Agway Blue Label Milk Replacer	Oxytetracycline	100 g/T	109 g/T
Agway Turkey Starter ...	Sulfaquinoxaline	.0175	.0140
Agway Turkey Starter ...	Sulfaquinoxaline	.0175	.0150
Agway Complete Grower	Amprolium	.004	.0037
Agway Complete Grower	Amprolium	.004	.0048
Agway Complete Grower	Amprolium	.004	.0034
Agway Complete Grower	Amprolium	.004	.0035
Agway Complete Grower	Amprolium	.004	.0034
Agway Complete Grower	Amprolium	.004	.0055
Agway Broiler Finisher	Amprolium	.0125	.0110
Agway Broiler Finisher	Amprolium	.0125	.0110
Agway Broiler Finisher	Amprolium	.0125	.0110
Agway Broiler Starter	Amprolium	.0125	.0110
Agway Pacemaker Starter	Amprolium	.004	.0031
Agway Pacemaker Starter	Amprolium	.004	.0045
Agway Pacemaker Starter	Amprolium	.004	.0038
Agway Pacemaker Starter	Amprolium	.004	.0038
Agway Pacemaker Starter	Amprolium	.004	.0040
Agway Pacemaker Starter	Amprolium	.004	.0038
Agway Pacemaker Starter	Amprolium	.004	.0036
Agway Terramycin A/D Crumbles	Oxytetracycline ..	2 g/lb.	2.4 g/lb.
Barber & Bennett Inc.			
Fort Orange Chick Starter	Amprolium	.010	.098
Fort Orange Chick Starter	Amprolium	.010	.0103
Fort Orange Chick Starter	Amprolium	.010	.0085
Farm Bureau Association			
Farm Bureau Chick Starter	Amprolium	.005	.0034
Farm Bureau Turkey Starter	Amprolium	.0125	.0109
Farm Bureau Turkey Starter	Amprolium	.0125	.0118
Ralston Purina Company			
Rabbit Chow Checkers ..	Sulfaquinoxaline .	.025	.018
Rabbit Chow Checkers ..	Sulfaquinoxaline .	.025	.021
Purina Rooster Chow Finisher	Arsanilic Acid ...	.01	.011
	Nicarbazin	.0125	.0118

Brands Containing Drugs (Continued)

Manufacturer & Brand	Drug	Guaranteed %	Found %
Ralston Purina Company			
Purina Turkey Startena ...	Amprolium	.0125	.0110
Purina Turkey Startena ...	Amprolium	.0125	.0100
Purina Turkey Startena ...	Amprolium	.0125	.0100
Purina Turkey Growena	Amprolium	.0125	.0115
Purina Chick Starter & Grower	Amprolium	.008	.008
Purina Chick Growena	Furazolidone ...	.011	.010
	Chlortetracycline	100 g/T	96 g/T
Purina Chick Startena	Amprolium	.008	.0082
Purina Chick Startena	Amprolium	.008	.0078
Purina Chick Startena	Amprolium	.008	.0080
Tri Mutual Inc.			
Grade A Nursing Formula ..	Chlortetracycline	45 g/T	45 g/T
United Coop. Farmers Inc.			
F.B. Rabbit Food	Sulfaquinoxaline	.025	.0200
F.B. Rabbit Food	Sulfaquinoxaline	.025	.0210
UCF All Mash Grower	Amprolium	.004	.0036
F.B. Chick Starter	Amprolium	.005	.0045
UCF Starter Mash	Amprolium	.005	.006
UCF Starter Mash	Amprolium	.008	.0065
F.B. Calf Milk Replacer ..	Chlortetracycline	50 g/T	50 g/T
Farm & Home Milk Replacer	Chlortetracycline	50 g/T	46 g/T
UCF Milk Replacer	Chlortetracycline	50 g/T	49 g/T
F.B. Brand Pig Starter & Grower	Bacitracin	25 g/T	21 g/T
UCF Turkey Grower	4-Nitro.	.01875	.0172
UCF Turkey Grower	4-Nitro.	.01875	.0149
UCF Turkey Grower	4-Nitro.	.01875	.0142
UCF Turkey Grower	4-Nitro.	.01875	.0139
Pig Starter & Grower	Bacitracin	25 g/T	8 g/T**
F.B. Pig Starter	Bacitracin	25 g/T	11 g/T**
Ventura Grain Company			
Every Day Chick Starter ..	Amprolium	.0125	.0120
H.K. Webster Company			
Blue Seal Dairy Mix Milk Replacer	Oxytetracycline ...	50 g/T	54 g/T
Blue Seal Dairy Mix Milk Replacer	Oxytetracycline	50 g/T	44 g/T
Blue Seal Piglets Milk Bits	Bacitracin	100 g/T	86 g/T
Blue Seal Piglets Crumbles	Bacitracin	100 g/T	109 g/T
Blue Seal Piglets Crumbles	Bacitracin	100 g/T	104 g/T
Blue Seal Piglets Crumbles	Bacitracin	100 g/T	104 g/T

Brands Containing Drugs (Cont'd)

Manufacturer & Brand	Drug	Guaranteed %	Found %
H.K. Webster Company (Cont'd)			
Blue Seal Piglets Crumbles	Bacitracin	100 g/T	95 g/T
Blue Seal Piglets Crumbles	Bacitracin	100 g/T	117 g/T
Blue Seal Piglets Crumbles	Bacitracin	100 g/T	124 g/T
B.S. Piglets Crumbles	Bacitracin	100 g/T	118 g/T
B.S. Piglets Crumbles	Bacitracin	100 g/T	100 g/T
B.S. Piglets Crumbles.....	Bacitracin	100 g/T	86 g/T
B.S. Broiler Crumbles	Amprolium	.0125	.0120
B.S. Broiler Crumbles	Amprolium	.0125	.0118
B.S. Broiler Crumbles	Amprolium	.0125	.0110
B.S. Broiler Crumbles	Amprolium	.0125	.0133
B.S. Broiler Crumbles	Amprolium	.0125	.0130
B.S. Turkey Grower	4-Nitro.	.01875	.0178
B.S. Turkey Grower	4-Nitro.	.01875	.0175
B.S. Turkey Grower	4-Nitro.	.01875	.0145
B.S. Turkey Grower	4-Nitro.	.01875	.0166
B.S. Turkey Grower	4-Nitro.	.01875	.0167
B.S. Turkey Grower	4-Nitro.	.01875	.0168
B.S. Turkey Grower Crumbles	Amprolium	.0125	.0113
B.S.Turkey Starter Cr.....	Amprolium	.0125	.0110
B.S. Turkey Starter Crumbles	Amprolium	.0125	.0118
B.S. Turkey Starter Cr....	Amprolium	.0125	.0130
B.S. Turkey Starter Cr....	Amprolium	.0125	.0113
B.S. Grower Cal A.M.	Amprolium	.00625	.00650
B.S. Grower Cal A.M.	Amprolium	.00625	.00675
B.S. Grower Cal A.M.	Amprolium	.00625	.0085
B.S. Grower Cal A.M.	Amprolium	.00625	.0085
B.S. Chick Starter AM	Amprolium	.0125	.0100
B.S. Chick Starter AM	Amprolium	.0125	.0110
B.S. Chick Starter AM	Amprolium	.0125	.006**
B.S. Chick Starter AM	Amprolium	.0125	.0127
B.S. Chick Starter AM	Amprolium	.0125	.0128
B.S. Hutch Pels	Sulfaquinoxaline..	.025	.020
B.S. Hutch Pels	Sulfaquinoxaline .	.025	.022
B.S. Hutch Pels	Sulfaquinoxaline .	.025	.021
B.S. Hutch Pels	Sulfaquinoxaline .	.025	.021
B.S. Hutch Pels	Sulfaquinoxaline .	.025	.023
B.S. Hutch Pels	Sulfaquinoxaline .	.025	.023
B.S. Hutch Pels	Sulfaquinoxaline..	.025	.022
B.S. Hutch Pels	Sulfaquinoxaline..	.025	.021
B.S. Hutch Pels	Sulfaquinoxaline..	.025	.022

**OUT OF TOLERANCE
*** EXCESSIVE

General Material Samples

The laboratory completed 840 general material samples. Of these there were 217 feed, 22 grasses, 47 fertilizers, 28 manures, 8 sludges and 124 silages. In addition there were 13 soils, 140 toxicology samples, 94 hays, 14 waxes and 45 miscellaneous.

SEED LABORATORY REPORT NO. 52
FOR FISCAL YEAR ENDING JUNE 30, 1979

By the Seed Laboratory Staff of the
Feed,Seed, Fertilizer Laboratory

Agricultural Experiment Station
College of Food & Natural Resources
University of Massachusetts, Amherst, Ma.

William J. Mellen, Acting Director of
Experiment Station

SEED LABORATORY STAFF:

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STATE SEED INSPECTORS:

James M. Cassidy, Assistant Director of Markets
George M. Porter, Seed Control Officer
Charles A. Batts
Daniel J. Burns
Joseph Dean
Earl H. Goodrich

SUMMARY OF YEAR'S WORK:

The Laboratory's main work involved analyzing 1171 samples of seed for quality. A total of 2049 tests were recorded but many other tests or examinations were also made and not recorded. Many of the unrecorded tests involved examinations for insects, diseases, treating materials, net weight, seed moisture, compliance with the labeling laws, surveillance in the proper use of plant names, and the validity of any claims expressed. Any findings which differed significantly from the labeled information or in variance with the Seed Law were reported to the wholesaler, retailer and the Seed Control Official.

POINTS OF THE INVESTIGATION:

Samples of seed sent to the laboratory were examined and analyzed as deemed necessary. The official samples were analyzed for the pertinent parameters required under the Seed Law. The legal requirements for seeds sold for seeding purposes are as follows:

A. ALL SEEDS[a]: Must be labeled to show the kind and if usually so labeled , the variety; treatment if any, the name and number per pound of any Restricted Noxious Weed Seeds present, and the name and address of labeler and seller; must contain no more than 1% Weed Seeds and must have a Germination of at least two thirds the adopted standard within 9 months prior to sale, or a statement in not less than eight point type that the Germination is Below Standard with the Germination and the date of test.

B. AGRICULTURAL AND LAWN SEEDS: All kinds must be labeled as to variety, if usually so labeled, or as "Variety Unknown"; for alfalfa, red and white clover, and corn except hybrid corn, the origin must be given or stated as "Origin Unknown"; the label must show the lot number, the Percentage Germination and Percentage Hard Seed, if any, of each Pure Seed component, and the calendar month and year of Germination test. The label must also show the percentage by weight of (1) each Pure Seed component[b], (2) Other Crop Seed, (3) Weed Seed, and (4) Inert Matter. Inert matter must not exceed 20% of the whole and the term "trace" must not be used for any required percentage.

C. VEGETABLE AND HERB SEEDS: If seeds are in containers of more than one pound for peas, beans and sweet corn or more than one quarter pound for other seeds, the label must show the lot number, percentage Germination, percentage Hard Seed, if any, and date of test. If seeds are packaged in smaller containers, the label must at least show the year for which it is packaged.

D. FLOWER SEEDS: If there could be any doubt as to which would apply, the seeds must be marked annual, biennial, or perennial. If seeds are packaged in containers larger than those for home flower gardens, the label must show the lot number, percentage Germination, percentage Hard Seeds, if any, and date of test. If seeds are packaged in containers of the size for home flower gardens, the label must at least show the year for which it is packaged.

E. TREE AND SHRUB SEEDS IN CONTAINERS OF ONE-QUARTER POUND OR MORE: The label must show the percentage Pure Seed and the year of collection; the locality and elevation must be given or stated as "Unknown": if a standard method of germination has been adopted, the percentage Germination and the date of test must be given.

F. SEEDS IN PREPLANTED CONTAINERS, MATS OR TAPES: The label must show the minimum number of seeds per square foot of agricultural seeds and for other seed, the minimum number in the container.

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[a]The full text of the Seed Act and the Rules and Regulations, Noxious Weed Seed list, standards and exceptions, may be obtained from the Chief Market Investigator, 100 Cambridge St., Boston 02202.

[b]A pure seed component is any agricultural seed present to the extent of at least 5% of the whole or seed of white clover, crop bentgrasses and redtop in smaller amounts if they are claimed. Each pure seed component must be named in order of its predominance under the heading "Fine Textured Grasses" or "Coarse Kinds".

G. ALL TREATED SEEDS:

If seed has been treated with a substance or process*, a treatment statement must appear in type no smaller than 8 point on the container, tag, or on a separate tag as indicated below:*

TREATMENT WITH SUBSTANCE OR PROCESS*:*	*RESTRICTED LABEL OR STATEMENT:*
1. *Amount remaining on seed not harmful to vertebrates, neither mercurials nor similarly toxic chemicals, on seed quantities of 4 ounces or less, or the following chemicals on seed quantities of any size, in concentrations less than indicated:* *allethrin- 2 parts per million,* *malathion- 8 p.p.m.* *methoxychlor- 2 p.p.m.* *piperonyl butoxide-* *on oat and sorghum- 8 p.p.m.,* *on all other seed- 20 p.p.m.,* *pyrethrins-* *on oat and sorghum- 1 p.p.m.,* *on all other seed- 3 p.p.m.*	*TREATED WITH:* _____ *(Name# of substance* or process*)* _____ *(Proprietary name permitted.)*
2. *Amount remaining on seed harmful to vertebrates, neither mercurials nor similarly toxic substances but on seeds in larger quantities or in concentrations higher than indicated above.*	*Treated with:* _____ *(Name# of substance*)* _____ (Proprietary name permitted.) DO NOT USE FOR FOOD FEED OR OIL.
3. *Mercurials or similarly toxic substances## if any amount remains on seed; including the following:* *Demeton* — *Heptachlor* *Diazinon* — *Parathion* *Disulfoton* — *Phorate* *Ethion* — *Toxaphene* *Fenaminosulf* — *All mercurials*	*Treated with:* _____ *(Name# of substance*)* _____ *(Proprietary name permitted.)* POISON**

**Designed to protect the seed or ameliorate development of seedling.*
#The name of the substances must be commonly accepted and must be either the coined name, chemical (generic) name or the abbreviated chemical name. It must not be a proprietary or trade name.
***The skull and crossbones must be at least twice the size of 8 point type and the word "POISON" must be in red letters.*
##These substances were classed as mercurials or similarly toxic substance under the Federal Seed Act, September 1977.

SAMPLES TESTED:

Table 1 gives the number of samples received and the number of the various tests made during the year. It is seen that of the 1171 samples received, 919 were official and 252 were service and experimental samples.

The results of the tests of services and experimental samples are not reported here because these findings are of primary concern only to the sender, but the results of the analyses and findings of the Official Samples which were deemed to differ significantly from the required or labeled information are given in the other tables following.

TABLE 1 Seed Samples for Inspection Year 1978-1979

Kind of Seed Samples	No. Rec'd.	Number of Analysis Scheduled			
		Germination	Purity	Nox.Weed	Other*
Official Samples					
Agricultural	62	61	61	61	10(F)
Agric. Mixtures (481 components)	131	352	131	131	95(F)
Vegetable & Herbs	522	524	---	---	9
Veg. Mixtures (3 components)	4	11	3	3	-
Flowers	187	186	---	---	19
Flower Mixtures (41 components)	4	17	---	---	1
Trees & Shrubs	0	--	---	---	--
Fl. & Veg. Kits, tapes, etc.	9	13	---	---	4
TOTAL OFFICIAL	919	1164	195	195	138
Service & Experimental					
Agricultural	92	78	29	29	34
Agric. Mixtures (20 components)	6	22	4	4	--
Vegetables	136	136	--	--	--
Flowers	7	7	--	--	--
Trees & Shrubs	3	2	--	--	1
Other (Weeds For Identification)	8	--	--	--	11
TOTAL SERVICE & EXP.	252	245	33	33	46
TOTAL OF ALL SAMPLES	1171	1409	228	228	184
TOTAL TESTS SCHEDULED		2049			

* Includes tests of accelerated aging, cleaning, growth rate, fluorescence (F), identification, cold test and seed count but does not include the number of examinations for net weight or other parameters.

SEED INSPECTORS WORK 1979

In addition to the 919 official samples collected, the Seed Inspectors issued 7 stop sale orders against approximately 33 other lots of seed involving 264 samples which were inadequately labeled, mostly because of having expired test dates.

TOBACCO SEED SERVICE 1979

The Seed Laboratory cleaned 6 lots of tobacco seed with a gross weight of 6.01 lb., a net weight of 4.97 lb. after cleaning. These 6 lots of seed were also tested for germination for tobacco growers in the Commonwealth.

DISCREPANCIES FOUND IN OFFICIAL SAMPLES 1979

All official samples of seed were examined and analyzed according to the Massachusetts Seed Act, using the "Rules for Testing Seeds", approved and adopted by the Association of Official Seed Analysts. The results of the analyses which are outside of official tolerances or otherwise varying significantly from the labeled information are shown in the following tables: Table 2 Agricultural seeds (single kinds), Table 3 Mixtures of Agricultural Seeds, Table 4 Vegetable Seeds, Table 5 Veg. Mixtures, Table 6 Flower Seeds, Table 7 Flower Seed Mixture & Table 8 Preplanted Containers. Table 9 shows the compliance of Official Samples as offered by various seed dealers, and Table 10 gives an analysis of the discrepancies.

TABLE NOTATIONS:

In the following tables, notations are made as to whether the variations are serious (S), minor (M), or technical (T). This classification is based on the following:

Serious (S) is assigned when laboratory findings:

1. Show the presence of any Prohibited Noxious Weed Seeds in excess of Official tolerance.
2. Differ from the labeled statement by more than twice the official tolerance for the purity or germination percentage of any Pure Seed component, Weed Seed percentage or number per pound of Restricted Noxious Weed Seeds.
3. Show seeds to be treated when not labeled as treated or vice versa.
4. Show seeds to be inherently weak in performance.
5. Indicate the claim as to use is highly exaggerated, or as to contents is grossly mislabeled or misleading.

Minor (M) is assigned when the laboratory findings:

1. Differ from the label by more than the official tolerance for the purity or germination percentage of any Pure Seed component, Weed Seed percentage, or Noxious Weed Seed;
2. Exceed the labeled percentage by more than twice the official tolerance for Inert Matter or Other Crop Seed;
3. Show inappropriate labeling or exaggerated claims but not grossly mislabeled.

Technical (T) is assigned when laboratory findings:

1. Show the quality of seed is within tolerance of the label but such things as the name or classification of a variety or treatment statement are improperly used.
2. Show the date of test, germination percentage or lot number are omitted.
3. Show there are other variations which do not misrepresent the seed.
4. Exceed the labeled percentage by more than the official tolerance for Inert Matter or Other Crop Seed.

Table 2 reports the discrepancies on the labeling of Agricultural Seeds for 1979. Of the 62 official samples collected by the State Inspectors, 15 were found to be at variance with the Seed Law.

TABLE 2

Discrepancies Found in Labeling Agricultural Seeds (Single Kinds)

1978-1979

Labeler/Shipper Seller/Consignee	Lab. no., kind, var., lot no., description	DISCREPANCY Labeled (L) Found (F)	Serious (S) Minor (M) Tech (T)
AGWAY INCORPORATED RIVERHEAD, N.Y. 11901 Agway, Inc. New Bedford, Ma. 02746	79-11 Seed Rye "Variety Not Stated" Lot E78-0047	Variety name or the statement "Variety Unknown" REQUIRED...	T
CAMPBELL GRAIN & SEED CO. WEST SALEM, IL. Loft's Pedigreed Seed Company Arlington, Ma.	79-2133 Red Top Lot #600	Labeled components tot. 103% IN ERROR.. Kind name used is ....INAPPROPRIATE. Correct usage is redtop.	T T
DERBY SEED COMPANY DERBY, CONNECTICUT 06410 Farm Bureau Assn. Waltham, Ma.	79-15 Rye "Var. Not Stated", Lot 9820	Variety name or the statement "Variety Unknown" is.REQUIRED	T
DERBY SEED COMPANY DERBY, CONN. 06410 Farm Bureau Assn. Waltham, Ma.	79-295 Italian Ryegrass, L76065A	Annual ryegrass is preferred name INAPPROPRIATE.. Found annual bluegrass 54 per lb.; name and no. per lb. under the heading Restricted Noxious Weed Seeds is.....MANDATED ..	T S

TABLE 2

Discrepancies Found in Labeling Agricultural Seeds (Single Kinds) (Cont'd)

1978-1979

Labeler/Shipper Seller/Consignee	Lab. no., kind, var., lot no., description.	DISCREPANCY Serious (S) Labeled (L) Minor (M) Found (F) Tech (T)
FOSTER SEED & FEED LTD. ALBERTA, CANADA Loft's Pedigreed Seed Co. Arlington, Ma.	79-2543 Creeping red fescue, Lot 1207	Missing purity %, germination %, and date of test REQUIRED T
LOFT'S PEDIGREED SEED CO. BOUND BROOK, NEW JERSEY Faietti Hardware, Middleboro, Ma.	79-98 White Clover #9330A	Found Plantago lanceolata (buckhorn plantain) 272/ lb. Name & no. per lb. under the heading Restricted Noxious Weed Seeds is...MANDATED S
LOFT'S PEDIGREED SEED CO. BOUND BROOK, NEW JERSEY Laughton Garden Co. North Chelmsford, Ma.	79-1030 White Clover Germ. date 1/78. GW-7974.	Collected 5/21/79. Germ. test EXPIRED M
O.M. SCOTT & SONS MARYSVILLE, OHIO Plymouth Supply Co., Plymouth, Ma.	79-372, Windsor Kentucky Bluegrass, #1002.	Germ % L85,F64 DEFICIENT M
SEARS ROEBUCK & CO. CHICAGO, IL. Sears Roebuck & Co., Brockton, Ma.	79-94, Kentucky Bluegrass, Lot #23072J	Purity %, Other Crop L. .17,F 1.26 EXCESSIVE T
STANFORD SEED CO. BUFFALO, NEW YORK Stanford Seed Co., Oxford, Ma.	79-262, Triple S Brand Sorghum Sudan-grass Hybrid, VNS 10720-41810.	"Triple S Brand" not a variety name. INAPPROPRIATE T
STANFORD SEED CO., BUFFALO, NEW YORK Stanford Seed Co., Oxford, Ma.	79-264, Garry Oats, Lot 11028-38901.	Germ % L 90, F 71 EXTREMELY DEFICIENT S
STANFORD SEED CO., BUFFALO, NEW YORK Stanford Seed Co., Oxford, Ma.	79-268, Alfalfa Var. Not Stated Lot #10112-43161.	If not known "Variety Unknown" is required. If known, variety is .....REQUIRED T

TABLE 2

Discrepancies Found in Labeling Agricultural Seeds (Single Kinds) (Cont'd)

1978-1979

Labeler/Shipper Seller/Consignee	Lab. no., kind, var., lot no., description.	DISCREPANCY Labeled (L) Found (F)	Serious (S) Minor (M) Tech (T)
STANFORD SEED CO., BUFFALO, NEW YORK The Grain Mill, Falmouth, Ma.	79-277 Buckwheat Variety Not Stated #11350-40981.	Variety name or the statement"Variety Unknown"is REQUIRED	T
VAUGHAN'S SEED CO., BOUND BROOK, N.J. John D. Lyon, Inc., Cambridge, Ma.	79-2074 Red Top #703	Purity % L93.31,F 86.10 EXTREMELY DEFICIENT	S
		Weed content % L .50, F 1.02 ILLEGAL	S
		Kind name is "redtop" INAPPROPRIATE	T
WHITNEY-DICKINSON SEEDS BUFFALO, NEW YORK Essex County Coop., Topsfield, Ma.	79-3564, Kentucky Bluegrass, in Idaho, #32-01-288.	Purity % L 86.76 Purity % F 80.71 EXTREMELY DEFICIENT	S

The following table reports the discrepancies on the labeling of mixtures of agricultural seeds for 1979. Of the 131 official samples collected by the State Inspectors, 59 were found to be at variance with the Seed Law.

Table 3
Discrepancies Found in Labeling Mixtures of Agricultural Seed
1979

Labeler/Shipper Seller/Consignee	Lab. No., Mixture name, lot no.	DISCREPANCY Serious (S) Labeled L Minor (M) Found F Tech (T)
AGWAY INC. SYRACUSE, NEW YORK Cape Agricultural Supply, Sandwich, Ma.	79-278, Otis Grass Mix, #PB8179, (Four components)	Total Purity % L 96.74; F 92.47 DEFICIENT M Germ. creeping red fescue % L80,F 68 DEFICIENT M
AGWAY INC. SYRACUSE, NEW YORK Agway Inc., New Bedford, Ma.	79-286, Soil Conservation Mix,#PB8129 (Six components)	Germ. % red fescue L 90, F 62 EXTREMELY DEFICIENT S
BISHOP CO./LEBANON CHEMICAL CORPORATION, LEBANON, PA. Hyannis Country Gardens, Hyannis,Ma.	79-395,Greenview Mini Seeder, #8840J (Six components)	Red & chewings fescue Germ. % L85, F 21 EXTREMELY DEFICIENT S K. bluegrass Germ. % L85, F71 DEFICIENT M
BISHOP CO./LEBANON CHEMICAL CORPORATION LEBANON, PA. Hyannis Country Gardens, Hyannis,Ma.	79-396, Grass Seed for Shade, #6638J (5 components)	Red fescues Germ. % L85, F 70 EXTREMELY DEFICIENT S K. bluegrass Germ. % L85, F 71 EXTREMELY DEFICIENT S
BISHOP CO./LEBANON CHEMICAL CORPORATION, LEBANON, PA. Hyannis Country Gardens, Hyannis, Ma.	79-397 Grass Seed Mix for Sun, #8337J (4 components)	Red fescue Germ. % L85, F 33 EXTREMELY DEFICIENT S
CRAWFORD GARDEN SUPPLY PROVIDENCE, RHODE ISLAND King's Dept. Store, Brockton, Ma.	79-2064, Valiant Grass Seed Mixture, #5558 (2 components)	Component labeled italian ryegrass, preferred name is annual ryegrass, INAPPROPRIATE T
CRAWFORD GARDEN SUPPLY PROVIDENCE, RHODE ISLAND The Fair, West Boylston, Ma.	79-3545, Sleepy Hollow Grass Mix, #5565 (2 components)	Component labeled italian ryegrass should preffered name is annual ryegrass INAPPROPRIATE T

TABLE 3
Discrepancies Found in Labeling Mixtures of Agricultural Seeds (Cont'd)
1979

Labeler/Shipper Seller/Consignee	Lab. No., Mixture name, lot no.	DISCREPANCY Labeled L Found F	Serious (S) Minor (M) Tech (T)
DRUID HILL PARK SEED CO., BALTIMORE, MD. Entwhistle Hdwe., New Bedford, Ma.	79-342, Year-After-Year Grass Seed Mix. #0YY-1, (4 components)	Red fescue Germ. % L 80, F 66 DEFICIENT	M
FARM BUREAU ASSN., GREENFIELD, MA. Farm Bureau Co-Op Assn., Inc., Littleton, Ma.	79-290, Park Grass Seed Mixture, #3569T, (3 components)	Manhattan perennial ryegrass is a Coarse Kind INAPPROPRIATE	T
FARM BUREAU ASSN., GREENFIELD, MA. Farm Bureau Co-Op Assn., Inc., Littleton, Ma.	79-292, Fab 80 Grass Seed Mix, #3572T, (4components)	Creeping red fescue Germ. % L 80, F 51 EXTREMELY DEFICIENT	S
FARM BUREAU ASSN., GREENFIELD, MA. Farm Bureau Co-Op Assn., Inc., Littleton, Ma.	79-293, Fab 98 Grass Seed Mix, #3573T, (4 components)	Manhattan perennial ryegrass is a Coarse Kind INAPPROPRIATE	T
FARM BUREAU ASSN., GREENFIELD, MA. Farm Bureau Co-Op Assn., Inc., Littleton, Ma.	79-294, Contractors Special Grass Seed Mix, Lot #3568T (3 components)	Creeping red fescue Germ. % L80, F 10 EXTREMELY DEFICIENT	S
HERITAGE HOUSE PRODUCTS, MEDINA, OHIO Entwhistle Hdwe, New Bedford, Ma.	79-343, Lawn Seed for Bare Spots, #HH-B5-78 (4 components)	Word "Mixture" on box or label is REQUIRED	T
LOFT'S PEDIGREED SEED CO., BOUND BROOK,NJ Faietti Hdwe, Middleboro, Ma.	79-95, Marvelgreen Grass Seed Mix, #LMG-1A-78,(3 components)	Creeping red fescue Germ.% L80, F 55 EXTREMELY DEFICIENT	S
LOFT'S PEDIGREED SEED CO., BOUND BROOK, NJ Faietti Hdwe, Middleboro, Ma.	79-96, New England Turf Grass Seed Mix, #LNET-1A-78, (4 components)	Creeping red fescue Germ. % L80, F 61 EXTREMELY DEFICIENT	S
		Yorktown perennial ryegrass is a Coarse Kind INAPPROPRIATE	T

TABLE 3

Discrepancies Found in Labeling Mixtures of Agricultural Seeds (Cont'd)

1979

Labeler/Shipper Seller/Consignee	Lab No., Mixture name, lot no.	DISCREPANCY Labeled L Found F	Serious (S) Minor (M) Tech. (T)
LOFT'S PEDIGREED SEED CO., ARLINGTON, MA. Chace Grain & Garden Corp., Westport, Ma.	79-257, URI #1 Mix, #URI-1-79, (4 comp.)	Creeping red fescue Germ. % L85, F74 DEFICIENT	M
LOFTS PEDIGREED SEED CO., ARLINGTON, MA. Chace Grain & Garden Corp., Westport, Ma.	79-258, URI #2 Mix, #URI-2-79, (4 components)	Creeping red fescue Germ. % L85, F 75 DEFICIENT	M
LOFT'S PEDIGREED SEED CO., ARLINGTON, MA. Chace Grain & Garden Corp., Westport, Ma.	#79-259, Quick Grow Mix, #LQG-79 (2 components)	Purity Labeled Component Total 101% IN ERROR	T
		Ryegrass components not labeled, but found 17.41% WIDE DISPARITY	S
LOFT'S PEDIGREED SEED CO., BOUND BROOK, N.J. Mostek's Hdwe, So. Bellingham, Ma.	79-327, Backyard Grass Seed Mix,#LBY -1-78, (3 components)	Creeping red fescue Germ. % L80, F 61 EXTREMELY DEFICIENT	S
LOFT'S PEDIGREED SEED CO., BOUND BROOK, NJ Mostek's Hdwe, So. Bellingham, Ma.	79-328, Fairway Mix., #LFair-1-78, (3 components)	Red fescue Germ. % L 90, F 60 EXTREMELY DEFICIENT	S
LOFT'S PEDIGREED SEED CO., BOUND BROOK, N.J. Mostek's Hdwe, So. Bellingham,Ma.	79-329, Grass Seed Marvel Green Grass Seed Mix, #LM16-1A-78 (3 components)	Creeping red fescue Germ. % L80, F62 EXTREMELY DEFICIENT	S
LOFT'S PEDIGREED SEED, CO., BOUND BROOK, N.J. Walmsley's Garden Ctr., Chelmsford, Ma.	79-1032, Cape Cod Special Mix, #CCS-1-77, (4 components)	Tall fescue Germ. % L 85, F71 DEFICIENT	M
		Creeping red fescue Germ. % L85, F38 EXTREMELY DEFICIENT	S
LOFT'S PEDIGREED SEED CO., BOUND BROOK,N.J. Loft's Pedigreed Seed Co., Arlington, Ma.	79-2127, Athletic Field Mix., #FM-79 (3 components)	Yorktown II ryegrass should be labeled perennial and Coarse Kind INAPPROPRIATE	T
LOFT'S PEDIGREED SEED CO., BOUND BROOK, N.J. Loft's Pedigreed Seed Co., Arlington, Ma.	79-2128, Spags Bowling Green Grass Seed Mix., #SB3-3-79,(4 components)	Components not in order of Predominance. INAPPROPRIATE	T

TABLE 3

Discrepancies Found in Labeling Mixtures of Agricultural Seeds (Cont'd)

1979

Labeler/Shipper Seller/Consignee	Lab. No., Mixture name, lot no.	DISCREPANCY Labeled L Found F	Serious (S) Minor (M) Tech (T)
LOFT'S PEDIGREED SEED BOUND BROOK, N.J. Loft's Pedigreed Seed, Arlington, Ma.	79-2130, Special No. 3 Mix, #JD579-183 (3 components)	Ryegrass labeled Fine Textured but classed as "Coarse Kind" INAPPROPRIATE	T
LOFT'S PEDIGREED SEED CO. BOUND BROOK, N.J. Loft's Pedigreed Seed Co., Arlington, Ma.	79-2132 English Park Contractors Mix (Coarse Kinds), #EPCM-79 (2 components)	Purity % Other Crop L. .75, F 2.19 EXCESSIVE	M
		Use implied by brand name INAPPROPRIATE	T
LOFT'S PEDIGREED SEED CO., BOUND BROOK, N.J. Loft's Pedigreed Seed, Arlington, Ma.	79-2534, New England Turf, #LNET-79 (3 components)	Germ. % MISSING.....	T
		Components not in order of predominance IN ERROR	T
		Perennial ryegrass is required as kind name for variety Yorktown II INAPPROPRIATE	T
		All varieties of per. ryegrass must be listed under "Coarse Kinds" INAPPROPRIATE	T
LOFT'S PEDIGREED SEED CO., BOUND BROOK, N.J. Loft's Pedigreed Seed, Arlington, Ma.	79-2542 Turf Supreme Mix, Lot TS-1-79, (4 components)	Yorktown II perennial ryegrass must be listed under "Coarse Kinds" INAPPROPRIATE	T
LOFT'S PEDIGREED SEED CO., BOUND BROOK, N.J. Loft's Pedigreed Seed, Arlington, Ma.	79-2538, Loft's Fairway Mix, #LFair-1-79, (3 components)	Creeping red fescue germ. % L90, F76 DEFICIENT	M
		Purity % Other Crop L .34, F 2.22 EXCESSIVE	M
LOFT'S PEDIGREED SEED CO., BOUND BROOK, N.J. Finast Super Market, Worcester, Ma.	79-3600, Glendale Park Brand Mixed Grass Seed, #GP-MC-GPI-78 (4 components)	Purity % Total L 98.00% IN ERROR	T
LOFT'S PEDIGREED SEED CO., BOUND BROOK, N.J. Baston Catholic Cemetery Assn., Roslindale, Ma.	79-2140, Cemetery Mix #CCA-79-106, (4 components)	Manhattan perennial ryegrass is a "Coarse Kind" INAPPROPRIATE	T

TABLE 3
Discrepancies Found in Labeling Mixtures of Agricultural Seeds (Cont'd)
1979

Labeler/Shipper Seller/Consignee	Lab. No., Mixture name, lot. no.	DISCREPANCY Labeled L Found F	Serious (S) Minor (M) Tech (T)
JOHN D. LYON, INC. CAMBRIDGE, MA. John D. Lyon, Inc., Cambridge, Ma.	79-2082 Lyon Pennlawn, Regal Shade Mix, Lot #579,(2 components)	Creeping red fescue germ. % L 90,F77 DEFICIENT Perennial ryegrass is a "Coarse Kind" INAPPROPRIATE	M T
JOHN D. LYON, INC. CAMBRIDGE, MA. John D. Lyon, Inc., Cambridge, Ma.	79-2083, Sun or Shade Lawn Seed Mix, Lot 479, (3 components)	Pennlawn creeping red fescue Germ % L90,F77 DEFICIENT	M
JOHN D. LYON, INC. CAMBRIDGE, MA. John D. Lyon, Inc., Cambridge, Ma.	79-2085, Baron, Pennlawn & Regal Mix, Lot 279, (3 components)	Pennlawn Cr. red fescue germ. % L90, F78 DEFICIENT Per. ryegrass is a Coarse Kind INAPPROPRIATE	M T
JOHN D. LYON, INC. CAMBRIDGE, MA. John D. Lyon, Inc., Cambridge, Ma.	79-2086, Baron, Regal Mix, Lot 179 (2 components)	Perennial ryegrass is a Coarse Kind INAPPROPRIATE	T
JOHN D. LYON, INC. CAMBRIDGE, MA. John D. Lyon, Inc., Cambridge, Ma.	79-2087, Deep Shade or Woodland Lawn Seed Mix, Lot 379, (3 components)	Pennlawn creeping red fescue Germ. % L90, F 71 EXTREMELY DEFICIENT	S
JOHN D. LYON, INC., CAMBRIDGE, MA. John D. Lyon, Inc., Cambridge, Ma.	79-2088, Play Yard Lawn Seed Mix, Lot 779 (4 components)	Chewings fescue and red fescue shall be listed separately or statement that they are mixed and proportions of each are unknown INAPPROPRIATE	T
MASS. NURSERYMEN'S ASSN., BOSTON, MA. Garden Craft, Assinippi, Ma.	79-401, Quick Turf, MNAQT-1-79,(4 components)	Creeping red fescue germ. % L85, F 63 EXTREMELY DEFICIENT	S
MASS. NURSERYMEN'S ASSN., BOSTON, MA. Garden Craft, Assinippi, Ma.	79-402, Sun or Shade Mass. Turf Mix, Lot MNA,(3 components)	Creeping red fescue germ. % L85, F 53 EXTREMELY DEFICIENT	S

TABLE 3

Discrepancies Found in Labeling Mixtures of Agricultural Seeds (Cont'd)

1979

Labeler/Shipper Seller/Consignee	Lab. No., Mixture name, lot no.	DISCREPANCY Labeled L Found F	Serious (S) Minor (M) Tech (T)
OLD FOX CHEMICAL CO., E. PROVIDENCE, R.I. Craig's Greenery, West Dennis, Ma.	79-393, Shady Lawn Seed Mix, Lot SL, (5 components)	Red fescue germ. % L 90, F 75 EXTREMELY DEFICIENT	S
O.M. SCOTT & SONS MARYSVILLE, OHIO Plymouth Supply Co., Plymouth, Ma.	79-369, Grass Seed Mix for Bare Spots, #1002,(3 components)	Creeping red fescue germ. % L82, F 66 DEFICIENT	M
O.M. SCOTT & SONS, MARYSVILLE, OHIO Plymouth Supply Co., Plymouth, Ma.	79-371, Shady Area Mix, #1015 (5 components)	Hard & red fescue germ. % L 82, F 68 DEFICIENT	M
O.M. SCOTT & SONS, MARYSVILLE, OHIO King's Dept. Store, Brockton, Ma.	79-2071, Play Grass Seed Mix, #1020 (5 components)	Perennial ryegrasses are"Coarse Kinds" INAPPROPRIATE	T
SEARS ROEBUCK & CO., CHICAGO, IL. Sears, Brockton, Ma.	79-92, Shady Lawn Seed Mix, #23040J, (4 components)	Red and chewing fescues L 85, F 69 EXTREMELY DEFICIENT	S
STANFORD SEED CO., BUFFALO, N.Y. Capeside Grain & Garden Supply, Hyannis, Ma.	79-164, Old English Bare Spot Grass Mix, #20620-191 (5 components)	Listing of ingredients under headings "Fine Textured" or "Coarse Kinds" is REQUIRED	T
		Name & no/lb of annual bluegrass under heading "Restricted Noxious Weed Seed"is....REQUIRED	M
STANFORD SEED CO., BUFFALO, N.Y. Stanford Seed Co., Oxford, Ma.	79-260, Campus Mix #20912-12954 (4 components)	Texture class is REQUIRED	T
STANFORD SEED CO., BUFFALO, N.Y. The Grain Mill, Falmouth, Ma.	79-276, Cape Cod Mix #31246-194 (5 components)	Listing pennfine per. ryegrass under heading "Coarse Kinds" is REQUIRED	T

TABLE 3
Discrepancies Found in Labeling Mixtures of Agricultural Seeds (Cont'd)
1979

Labeler/Shipper Seller/Consignee	Lab. No., Mixture name, lot no.	DISCREPANCY Serious (S) Labeled L Minor (M) Found F Tech (T)
STANFORD SEED CO., BUFFALO, N.Y. Conlon & Donnelly, Attleboro, Ma.	79-288, #2 Mixture Lot #20804-144 (4 components)	Labeled Purity % totals 99.9% IN ERROR T Listing under texture class is REQUIRED T
STANFORD SEED CO., BUFFALO, N.Y. Bradford's Hdwe, Hyannis, Ma.	79-391, Old English Shady Mix, #20615-19 (4 components)	Red & chewing fescues germ. % L 85, F 67 EXTREMELY DEFICIENT S Listing under texture class is REQUIRED T
STANFORD SEED CO., BUFFALO, N.Y. Bradford Hdwe, Hyannis, Ma.	79-392, Old English Sunny Lawn Seed Mix, #20610-181, (4 components)	Listing under texture class is REQUIRED T Creeping red fescue germ. % L80, F67 DEFICIENT M
STANFORD SEED CO., BUFFALO, N.Y. Poole's Hdwe, Brockton, Ma.	79-2142, Shady Lawn Seed Mixture, #20615-191 (4 components)	Red fescue germ. % L 85, F 68 EXTREMELY DEFICIENT S Type size too small INAPPROPRIATE T Texture class is REQ T
STANFORD SEED CO., BUFFALO, N.Y. Poole's Hdwe, Brockton, Ma.	79-2143, Old English Sunny Grass Seed Mix #20610-191 (4 components)	Red fescue germ. % L 85, F 73 DEFICIENT M Texture class is REQUIRED T Type size too small. INAPPROPRIATE T
WALMSLEY'S GARDEN CTR., CHELMSFORD, MA. Walmsley's Garden Ctr., Chelmsford, Ma.	79-1033, Farmer Jim's Suburban Mix, #WSM79-149 (3 components)	Creeping red fescue germ. % L90, F 77 DEFICIENT M
WHITNEY-DICKINSON SEEDS, BUFFALO, N.Y. S.A.Joseph Hdwe., Nrowell, Ma.	79-399, Sylvan Grass Seed Mixture #59-910 (5 components)	Red fescue germ. % L 85, F 73 DEFICIENT M
WHITNEY-DICKINSON SEEDS, BUFFALO, N.Y. Littlefield-Wyman Nurseries Inc., Abington, Ma.	79-2112, Outdoor Living Grass Seed Mix, #59-804, (3 components)	Ky. bluegrass germ. % L 80, F68 DEFICIENT M

TABLE 3
Discrepancies Found in Labeling Mixtures of Agricultural Seeds (Cont'd)
1979

Labeler/Shipper Seller/Consignee	Lab. No., Mixture name, lot no.	DISCREPANCY Labeled L Found F	Serious (S) Minor (M) Tech (T)
WHITNEY-DICKINSON, BUFFALO, NY Bradlee's Store 80480, Brockton, Ma.	79-2150, Luxury Lawn Grass Seed Mix, #59-907 (4 components)	Use of stylized variety name "Pennfine" INAPPROPRIATE	T
		Flagging minor component INAPPROPRIATE	T
WHITNEY-DICKINSON, BUFFALO, NY Bradlees Store, Brockton, Ma.	79-2151, Sylvan Grass Seed Mixture, #59-910 (5 components)	Use of stylized variety name "Pennfine" INAPPROPRIATE	T
		Flagging minor component INAPPROPRIATE	T
WHITNEY-DICKINSON, BUFFALO, NY Bradlees Store, Brockton, Ma.	79-2152, Outdoor Living Grass Seed Mix, #54-904 (3 components)	Use of stylized variety name "Pennfine" INAPPROPRIATE	T
		Flagging a minor component is INAPPROPRIATE	T
		Ky bluegrass germ. % L 80, F 62 EXTREMELY DEFICIENT	S
WHITNEY-DICKINSON INC., ABINGTON, MA. Bradlees Store, Shrewsbury, Ma.	79-3589, Fabulawn Fescue Grass Seed Mix, #5705905 (3 components)	Creeping red fescue germ. % L85, F 68 EXTREMELY DEFICIENT	S

The following table reports the discrepancies in the labeling of vegetable seeds for 1979. Of the 522 samples collected by the State Inspectors, 26 were found to be at variance with the Seed Law.

TABLE 4

Discrepancies Found in Labeling Vegetable Seeds 1979

Labeler/Shipper Seller/Consignee	Lab. no., kind, variety, lot no., description.	DISCREPANCY Labeled L Found F	Serious (S) Minor (M) Tech (T)
ADVANCE SEED CO., FULTON, KY. Spag's Supply, Shrewsbury, Ma.	79-228, Onion, Green Bunching Globe, Lot #K	Two out of two packets contaminated with other crop seed, Brassica spp. WIDE DISPARITY	S
AGWAY, INC., SYRACUSE, N.Y. Merle J.E. Stetson, Myricks, Ma.	79-314, Endive, Salad King, #R1, "Do not use for food feed or oil purposes"	Not treated; treatment statement PROHIBITED	S
AGWAY, INC., SYRACUSE, N.Y. Merle J.E.Stetson, Myricks, Ma.	79-318, Onion, Early Yellow Globe, #RI "Do not use for food feed or oil purposes."	Not Treated; treatment statement PROHIBITED	S
AMERICAN SEED CO., NEW HAVEN, MICHIGAN Rich's, Plymouth, Ma.	79-374, Cabbage, Early Round Dutch, Run A	Germ. % Standard 75% Found 5% UNFIT FOR SEEDING	S
W. ATLEE BURPEE CO., WARMINSTER, PA. Sargent's True Value Home Center, Brockton, Ma.	79-2014, Lettuce, Grand Rapids, #6043-0	Short weight L680 mg, F 620 mg. EXTREME SHORT WEIGHT	S
COMSTOCK,FERRE & CO., WETHERSFIELD, CT A.W. Brown Inc., E. Longmeadow, Ma.	79-3004, Carrot, Danvers, Half Long, #3180	Year for which packaged missing..... REQUIRED	T
FRENCH MILL OUTLET, WOONSOCKET, R.I. Lincoln Super Drugs, Milford, Ma.	79-123, Carrot, Empress	Germ % Standard 55 Found 17 UNFIT FOR SEEDING ..	S
JOSEPH HARRIS CO., ROCHESTER, N.Y. James A. Cassidy, Mass. Dept. of Agric., Boston, Ma.	79-2503, Hybrid Eggplant, 465 Classic, #465-734	Short weight L 1/8 oz (3.54 g),F 3.1 g EXTREME SHORT WEIGHT	S

TABLE 4

Discrepancies Found in Labeling Vegetable Seeds 1979 (Cont'd)

Labeler/Shipper Seller/Consignee	Lab. no., kind, variety, lot no., description.	DISCREPANCY Labeled L Found F	Serious (S) Minor (M) Tech (T)
CHAS. C. HART SEED CO., WETHERSFIELD, CONNECTICUT Poole's Paint & Hdwe, Springfield, Ma.	79-2048, Lettuce Romaine, #1	Germ. % Standard 80 F 24 SEED UNFIT FOR SEEDING	S
CHAS. C. HART SEED CO.,WETHERSFIELD, CT Parker Street Florist Garden Center, Springfield, Ma.	79-3043, Carrot, Danvers Half Long, Stump Root, #3	Short weight L 2.26 g F 1.64, 1.65g EXTREMELY SHORT WEIGHT	S
CHAS. C. HART SEED CO.,WETHERSFIELD, CT Parker St.Florist Garden Ctr., Springfield, Ma.	79-3047, Onion, Riverside Sweet Spanish, #3	Short weight L 1.13 g F 830, 790, 760 mg EXTREMELY SHORT WEIGHT	S
CHAS. C. HART SEED CO., WETHERSFIELD, CT Parker St. Florist Ctr, Sprgfld,Ma.	79-3049, Lettuce, Buttercrunch, Lot #2	One of two packets short weight L 1.1 F 1.06 g SHORT WEIGHT	M
CHAS. C. HART SEED CO., WETHERSFIELD, CT Birch 'N Bend Chicopee Falls, Ma.	79-3097, Lettuce, Romaine or White Cos, #1	Germ. % Standard 80, F 22 SEED UNFIT FOR SEEDING	S
NORTHRUP KING & CO., MINNEAPOLIS, MN Rosnengo Hdwe, Buzzards Bay, Ma.	79-195, Lettuce, Oak Leaf, #807	Germ. % Standard 80, F 67 DEFICIENT	M
NORTHRUP KING & CO., MINNEAPOLIS, MN W. Woolworth Co., Brockton, Ma.	79-2162, Lettuce Salad Bowl, #805	Germ. % Standard 80, F 12 UNFIT FOR SEEDING	S
PAGE SEED CO., GREENE, N.Y. Sandwich Hdwe, Sandwich, Ma.	79-148, Beet, Early, Wonder, #1	2 out of 3 packets short weight L 4 g, F 3.77 g, 3.19 g EXTREMELY SHORT WEIGHT	S
PAGE SEED CO., GREENE, N.Y. Bluebird Acres, E. Longmeadow, Ma.	79-3082, Leek, Large American Flag, Run 1	1 out of 3 pkts short weight L 1 g, F .88 g EXTREMELY SHORT WEIGHT	S

TABLE 4

Discrepancies Found in Labeling Vegetable Seeds 1979 (Cont'd)

Labeler/Shipper Seller/Consignee	Lab no., kind, variety, lot no., description.	DISCREPANCY Serious (S) Labeled L Minor (M) Found F Tech (T)
PAGE SEED CO., GREENE, N.Y. Bluebird Acres, E. Longmeadow, Ma.	79-3085, Chicory, Radichetta, Run 1	2 out of 2 pkts short weight L 1.5 g; F 1.40, 1.36 g EXTREMELY SHORT WEIGHT S
GEORGE M. PARK SEED CO., GREENWOOD, S.C. James M. Cassidy, Mass. Dept. of Agric, Boston, Ma.	79-2528, Lettuce, Red Salad Bowl, #5168	Date of test or year for which packed. REQUIRED T
GEORGE M. PARK SEED CO., GREENWOOD, S.C. James M. Cassidy, Mass. Dept. of Agric., Boston, Ma.	79-2529, Turnip Purple Top, #5469	Date of test or year for which packed. REQUIRED T
GEORGE M. PARK SEED CO., GREENWOOD, S.C. James M. Cassidy, Mass. Dept. of Agric., Boston, Ma.	79-2530, Leek, American Flag, #5154	Date of test or year for which packed. REQUIRED T
GEORGE M. PARK SEED CO., GREENWOOD, S.C. James M. Cassidy, Mass. Dept. of Agric., Boston,Ma.	79-2531, Onion, Southport, Red Globe #5211	Date of test or year for which packed. REQUIRED T
GEORGE M. PARK SEED CO., GREENWOOD, S.C. James M. Cassidy, Mass. Dept. of Agric., Boston, Ma.	79-2532, Radish, Red Boy, #5282	Date of test or year for which packed. REQUIRED T
GEORGE M. PARK SEED CO., GREENWOOD, S.C. James M. Cassidy, Mass. Dept. of Agric., Boston, Ma.	79-2533, Spinach, Melody, #5285	Date of test or year for which packed. REQUIRED T
VAUGHAN-MANDEVILLE CO., DOWNERS GROVE, IL. Littlefield-Wyman Inc., Abington,Ma.	79-2115, Lettuce, Blk. Seeded Simpson, Lot #2	One out of one short weight L 2.0 g, F 1.94 g SHORT WEIGHT M

TABLE 4

Discrepancies Found in Labeling Vegetable Seeds 1979 (Cont'd)

Labeler/Shipper Seller/Consignee	Lab. no., kind, variety, lot no., description.	DISCREPANCY Labeled L Found F	Serious (S) Minor (M) Tech (T)
VAUGHAN-MANDEVILLE INC., DOWNERS GROVE, IL. Parker Street Florist Garden Center, Springfield, Ma.	79-3060, Leek, American Flag, Run 3	2 out of 2 packets Short weight L 1.5 g, F 1.02, 1.25 g EXTREMELY SHORT WEIGHT	S

The following table reports the discrepancies in the labeling of mixtures of vegetable seed for 1979. Of the 4 samples collected by the State Seed Inspectors, three were found to be at variance with the Seed Law.

TABLE 5
Discrepancies Found in Labeling Vegetable Seed Mixtures
1979

LABELER/SHIPPER Seller/Consignee	Lab. no., kind, variety, lot no., description.	DISCREPANCY Labeled L Found F	Serious (S) Minor (M) Tech (T)
APPLEWOOD SEED CO., GOLDEN, COLORADO Cape Agric. Supply, Sandwich, Ma.	79-338, Crispy Mix for Sprouts, #105 Radish, cabbage, alfalfa, crimson clover or mammoth red clover.	Variety name or statement "Variety Names Unknown" is REQUIRED Origin or "Origin Unknown" for alfalfa and red clover. REQUIRED	T T
APPLEWOOD SEED CO., GOLDEN, CO. Cape Agric. Supply, Sandwich, MA.	79-339, Mellow Mix for Sprouts, #105, Fennel, cabbage, crimson clover or mammoth red clover.	Variety names or statement "Variety Names Unknown" is ..... REQUIRED Origin or "Origin Unknown" for red clover is ..... REQUIRED	T T
APPLEWOOD SEED CO., GOLDEN, CO. Cape Agric. Supply, Sandwich, Ma.	79-340, Spicy Mix for Sprouts, #120 Alfalfa, radish.	Variety names or statement "Variety Names Unknown" is ..... REQUIRED Origin or "Origin Unknown" for alfalfa is ..... REQUIRED	T T

The following table reports the discrepancies in the labeling of Flower Seeds for 1979. Of the 187 samples collected by the State Inspectors, 42 were found to be at variance with the State Seed Law.

TABLE 6
Discrepancies Found in Labeling Flower Seeds 1979

LABELER/SHIPPER Seller/Consignee	Lab. no., kind, variety, lot no., description.	DISCREPANCY Labeled L Found F	Serious (S) Minor (M) Tech (T)
EXCEL SEED CO., DOWNERS GROVE, IL. Hopedale Hdwe Inc., Milford, Ma.	79-3536, Alyssum, Violet Queen, #1	Germ. % Standard 60, F 29. UNFIT FOR SEEDING	S
EXCEL SEED CO., DOWNERS GROVE, IL. Hopedale Hdwe Inc., Milford, Ma.	79-3538, Moss Rose, Portulaca, Double Mixed Colors, #3	Short weight L 150mg F 100mg. EXTREMELY SHORT WEIGHT	S
EXCEL SEED CO. DOWNERS GROVE, IL. Hopedale Hdwe Inc., Milford, Ma.	79-3540, Verbena, Dwarf Master Blend #1	Short weight L 300 mg F 250 mg. EXTREMELY SHORT WEIGHT	S
FERRY-MORSE SEED CO., FULTON, KY. Harwich Port True Value Hdwe, Harwich, Ma.	79-76, Alyssum, Royal Carpet, Lot H	Germ. % Standard 60, F 43 DEFICIENT	M
FERRY-MORSE SEED CO., FULTON, KY. Harwich Port True Value Hdwe, Harwich, Ma.	79-79, Aster, Crego Mixed Colors, #Lot H	Germ. % Standard 55; F 1 UNFIT FOR SEEDING	S
FERRY-MORSE SEED CO. FULTON, KY. Harwich Port True Value Hdwe,Harwich, Ma.	79-81, Marigold,Petite, Mixed Colors, #Lot H	Germ. % Standard 65, F 54 DEFICIENT	M
FERRY-MORSE SEED CO., FULTON, KY. Harwich Port True Value Hdwe,Harwich, Ma.	79-83, Petunia, Happy Talk, Mixed Colors, #Lot H	Germ. % Standard 45, F 4 UNFIT FOR SEEDING	S

TABLE 6

Discrepancies Found in Labeling Flower Seeds 1979 (Cont'd)

LABELER/SHIPPER Seller/Consignee	Lab. no., kind, variety, lot no., description.	DISCREPANCY Serious (S) Labeled L Minor (M) Found F Tech (T)
FREDONIA SEED CO., FREDONIA, N.Y. Laughton Garden Ctr., N. Chelmsford, Ma.	79-1022, Mexican Fire Bush, Summer Cyprus Code E	L 820 mg, F 620,650,650 mg EXTREMELY SHORT WEIGHT S
FREDONIA SEED CO., FREDONIA, N.Y. Laughton Garden Ctr., N. Chelmsford, Ma.	79-1023, Nicotiana, Sensation Mixed Colors, Code E	L 410 mg,F270, 270 mg. EXTREMELY SHORT WEIGHT S Germ. % Standard 65,F37 UNFIT FOR SEEDING S
FREDONIA SEED CO., FREDONIA, N.Y. Laughton Garden Ctr., N. Chelmsford, Ma.	79-1024, Pansy, Super Swiss Grants, Code B	Labeled "annual" Mass. considers pansy as a "biennial" INAPPROPRIATE T Germ. % Standard 60, F 39 UNFIT FOR SEEDING S
FREDONIA SEED CO., FREDONIA, N.Y. Laughton Garden Ctr., N. Chelmsford, Ma.	79-1025, Salvia, Blue Bedder, Code B	L 340 mg, F 320, 330 mg EXTREMELY SHORT WEIGHT S
FREDONIA SEED CO., FREDONIA, N.Y. Laughton Garden Ctr., N. Chelmsford, Ma.	79-1027, Verbena, Ideal Florist Mix, Code A	L680mg, F 670 mg SHORT WEIGHT M Germ % Standard 35,F 5 UNFIT FOR SEEDING S
FRENCH MILL OUTLET WOONSOCKET, R.I. Lincoln Super Drugs, Milfrod, Ma.	79-118, Alyssum, Carpet of Snow	Germ. % Standard 60, F 39 UNFIT FOR SEEDING S
FRENCH MILL OUTLET, WOONSOCKET, R.I. Lincoln Super Drugs, Milford, Ma.	79-122, Marigold, French Dwarf, Mixed Colors	Germ. % L 65, F 6 UNFIT FOR SEEDING S
FRENCH MILL OUTLET WOONSOCKET, R.I. Lincoln Super Drugs, Milford, Ma.	79-121,Forget-me-not, Firmament	Germ. % Standard 55, F 0 UNFIT FOR SEEDING S
JOSEPH HARRIS CO., ROCHESTER, N.Y. J.M. Cassidy, Mass. Dept. of Agriculture, Boston, Ma.	79-2521, Celosia, Nat Fex, #3324, #1815	L 200 seed, F 196,171 EXTREMELYSHORT COUNT S

TABLE 6

Discrepancies Found in Labeling Flower Seeds 1979 (Cont'd)

LABELER/SHIPPER Seller/Consignee	Lab. no., kind, variety, lot no., description.	DISCREPANCY Labeled L Found F	Serious (S) Minor (M) Tech (T)
CHAS. C. HART SEED CO., WETHERSFIELD, CONNECTICUT J.H. Fairbanks Co., Bridgewater, Ma.	79-26, Alyssum, Royal Carpet, #3	Germ. % Standard 60, F 47 DEFICIENT	M
CHAS. C. HART SEED CO., WETHERSFIELD, CT J.H. Fairbanks Co., Bridgewater, Ma.	79-27, Aster, Crego Mix Colors, #2	L 567 mg, F 450,540 mg. EXTREMELY SHORT WEIGHT	S
CHAS. C. HART SEED CO., WETHERSFIELD, CT J.H. Fairbanks Co., Bridgewater, Ma.	79-30, Candy Tuft, Dwarf Hybrids, Finest, Mix. Colors, #2	Germ. % Standard 65, F 51 DEFICIENT	M
CHAS. C. HART SEED CO.,WETHERSFIELD, CT J.H. Fairbanks Co., Bridgewater, Ma.	79-32, Gypsophyla, Baby's Breath, White #1	L 1.1 g, F 1.04,1.05 mg SHORT WEIGHT	M
CHAS. C. HART SEED CO., WETHERSFIELD, CT J.H. Fairbanks Co., Bridgewater, Ma.	79-34, Marigold, Petite Mix Colors, #2	L 324 mg, F 250 mg EXTREMELY SHORT WEIGHT	S
CHAS. C. HART SEED CO., WETHERSFIELD, CT Swansea Hdwe Store, Swansea, Ma.	79-128, Marigold, Crackerjack, #2	L 454 mg, F 360,280 mg EXTREMELY SHORT WEIGHT	S
NORTHRUP-KING & CO., MINNEAPOLIS, MN. Toabe's Hdwe, Hanson, Ma.	79-219, Shasta Daisy, Alaska, #804	L 600 mg,F 580 mg EXTREMELY SHORT WEIGHT	S
NORTHRUP-KING CO., MINNEAPOLIS, MN. Toabe's Hdwe, Hanson, Ma.	79-222, Zinnia, Dark Jewels, #805	L 500 mg, F 430 mg EXTREMELY SHORT WEIGHT	S
NORTHRUP-KING & CO., MINNEAPOLIS, MN Laughton Garden Ctr., N. Chelmsford, Ma.	79-1011, Cosmos, Radiance, #803	L 1 g, F .93 g EXTREMELY SHORT WEIGHT	S
NORTHRUP-KING & CO., MINNEAPOLIS, MN Laughton Garden Ctr., N. Chelmsford, Ma.	79-1012, Cynoglossum, Chinese Forget-Me-Not, #5561,#806	Germ. % Standard 55, F 17 UNFIT FOR SEEDING	S

TABLE 6

Discrepancies Found in Labeling Flower Seeds 1979 (Cont'd)

LABELER/SHIPPER Seller/Consignee	Lab. no., kind, variety, lot no., description.	DISCREPANCY Labeled L Found F	Serious (S) Minor (M) Tech (T)
PAGE SEED CO., GREENE, N.Y. Capeside Grain & Garden Supply, Hyannis, Ma.	79-168, Aster, Dwarf Queen, #1	Contamination with other flower seed.	EXCESSIVE M
PAGE SEED CO., GREENE, N.Y. Capeside Grain & Garden Supply, Hyannis, Ma.	79-171, Cosmos Early Mammoth Single Mix, #1	Lot no. and date of test not clearly printed.	INAPPROPRIATE T
PAGE SEED CO., GREENE, N.Y. Capeside Grain & Garden Supply, Hyannis, Ma.	79-172, Delphinium, Pacific Giant, Hybrid Mix Colors, #2	L 400 mg, F 210, 230 mg EXTREMELY SHORT	WEIGHT S
PAGE SEED CO., GREENE, N.Y. Capeside Grain & Garden Supply, Hyannis, Ma.	79-176, Pansy, Large Flowering, Mixed Clrs, #2	Labeled "annual", Mass. considers pansy as a "biennial"	INAPPROPRIATE T
PAGE SEED CO., GREENE, N.Y. Capeside Grain & Garden Supply, Hyannis, Ma.	79-177, Petunia, Colorama, F2 Mixed Colors, #2	Lot no. and date of test not clearly printed	INAPPROPRIATE T
PAGE SEED CO., GREENE, N.Y. Capeside Grain & Garden Supply, Hyannis, Ma.	79-178, Pinks, Dianthus Double Imperial, Mix Clrs.	Lot no. and date of test not clearly printed	INAPPROPRIATE T
PAGE SEED CO., GREENE, N.Y. Capeside Grain & Garden Supply, Hyannis, Ma.	79-179, Phlox Drummondi, Mix Colors	L 500 mg, F 410 mg EXTREMELY SHORT	WEIGHT S
PAGE SEED CO., GREENE, N.Y. Capeside Grain & Garden Supply, Hyannis, Ma.	79-180, Shasta Daisy, Alaska, #1	L 600, F 520 mg EXTREMELY SHORT	WEIGHT S
		Lot no. and date of test not clearly printed	INAPPROPRIATE T

TABLE 6

Discrepancies Found In Labeling Flower Seeds 1979 (Cont'd)

LABELER/SHIPPER Seller/Consignee	Lab. no., kind, variety, lot no., description.	DISCREPANCY Labeled L Found F	Serious (S) Minor (M) Tech (T)
PAGE SEED CO., GREENE, N.Y. Gatske Hdwe Co., Webster, Ma.	79-3502, Petunia Red	"Red" is not a variety name INAPPROPRIATE	T
GEO. W. PARK SEED CO., GREENWOOD, S.C. J.M. Cassidy, Mass. Dept. of Agric., Boston, Ma.	79-2525, Aster, Super Giant, Crimson, #0244	Date of test or year which packaged for is ..... REQUIRED	T
GEO. W. PARK SEED CO., GREENWOOD, S.C. J.M. Cassidy, Dept. of Agric. Boston, Ma.	79-2526, Ageratum, Blue Mink, #0033	Date of test or year which packed for is ..... REQUIRED	T
GEO. W. PARK SEED CO., GREENWOOD, S.C. J.M. Cassidy, Mass.Dept.of Agric., Boston, Ma.	79-2527, Begonia, Jana, #2783	Date of test or year for which packed is REQUIRED Distinctly weak vitality. Germ. 7%. UNFIT FOR SEEDING	T S
UNWIN LTD., CAMBRIDGE, ENGLAND Spag's Supply,Inc., Shrewsbury, Ma.	79-3555, Nemesia, Hybrid Triumph, Mixed, Lot E	Germ. % Standard 65, F 25 UNFIT FOR SEEDING	S
VAUGHAN-MANDEVILLE CO., DOWNERS GROVE, IL. Spag's Supply Inc., Shrewsbury, Ma.	79-237, Sweet William, Dwarf Double, Mix Clrs, #1	Germ. % Standard 70, F52, DEFICIENT	M
VAUGHAN-MANDEVILLE CO., DOWNERS GROVE, IL. Marble Hdwe Co., Marion, Ma.	79-347, Portulaca, Double-Mixed Colors, Run 1	Expired test date ILLEGAL	M
VAUGHAN-MANDEVILLE CO., DOWNERS GROVE, IL. Marble Hdwe Co., Marion, Ma.	79-349, Zinnia, Gold Medal, Mixed Colors, Run 3	Germ. % Standard 65, F 42 UNFIT FOR SEEDING	S

The following table reports the discrepancies found in the labeling of mixtures of Flower Seeds for 1979. Of the 4 samples collected, 4 were found to be at variance with the Seed Law.

TABLE 7

Discrepancies Found in Labeling Flower Seed Mixtures

1979

LABELER/SHIPPER Seller/Consignee	Lab. no., kind, variety, lot no., description.	DISCREPANCY Serious (S) Labeled L Minor (M) Found F Tech (T)
FERRY-MORSE SEED CO., FULTON, KY. Harwichport True Value Hdwe, Harwich, Ma.	79-78, Annual Flower Mix, Lot H	Picture on packet shows 3 kinds not found in the mixture, MISREPRESENTED M Marigold Germ. % Standard 65, F 44 BELOW STANDARD M Aster Germ. % Standard 55, F 0 UNFIT FOR SEEDING S
NORTHRUP-KING & CO., MINNEAPOLIS, MN. W. Woolworth Co., Brockton, Ma.	79-2153, Annual Cut Flower Mixture, Lot #810	Helichrysum Germ. % Standard 60, F 20 UNFIT FOR SEEDING S
PAGE SEED CO., GREENE, N.Y. Capeside Grain & Garden Supply, Hyannis, Ma.	79-181 Strawflower, Mixed #1. Pictured Helichrysum, statice and Globe amarantha.	Contained only Helichrysum (mislabeled) MISREPRESENTED M Lot no. and date of test not clearly printed. INAPPROPRIATE T
VAUGHAN-MANDEVILLE DOWNERS GROVE, IL. Colony Hdwe, Norton, Ma.	79-233, Floral Bouquet, Mixed Colors, #1	Six kinds pictured on packet were not found in the mixture MISREPRESENTED M Petunia Germ. % Standard 45, L 30 DEFICIENT M

The Table 8 reports the discrepancies found in the labeling of flower, vegetable, & tree kits, tapes, preplanted containers etc. Of the 9 samples collected by the State Inspectors, 3 were found to be at variance with the Seed Law.

TABLE 8

Discrepancies Found in Labeling Seeds in Preplanted Containers

LABELER/SHIPPER Seller/Consignee	Lab. no., kind, variety, lot no., description.	DISCREPANCY Labeling L Found F — Serious (S) Minor (M) Tech (T)
BANDWAGON INC., WILMINGTON, MA. Bandwagon, Inc., Wilmington, Ma.	79-2056, Sensitive Plant	Min. number of seeds is .....REQUIRED T Only 1 of 6 compartments contained seed. Contamination with other crop seed. EXCESSIVE M
BANDWAGON, INC. WILMINGTON, MA. Bandwagon, Inc., Wilmington, Ma.	79-2057, Bonsai Tree Set Lot #1 (8 kinds)	Origin of seed is.....REQUIRED T Western Yellow Pine Germ. % L 59, F 0 UNFIT FOR SEEDING S Mugo Pine Germ. % L 77, F 0 UNFIT FOR SEEDING S
UNION WADDING INC., PAWTUCKET, R.I. Lincoln Super Drugs, Milford, Ma.	79-117, Window Box Herb Garden, Rollout Planter Chives, Florence Fennel, Summer Savory, Dill.	Dill L 250 seed, F 49 EXTREMELY SHORT COUNT S Year for which packed is ..... MISSING T

COMPLIANCE TO THE SEED LAW 1979

Table 9 reports how the major labelers or shippers complied with the Massachusetts Seed Law. The name listed are those of the seed companies, wholesale suppliers, prominently advertised divisions of larger firms, or trade names appearing on large letters on the label.

The table shows for each supplier, the number of samples collected for each kind group. The number of serious, minor or technical discrepancy counts are also shown on the last three columns.

Table 9
Compliance of Seed Dealers to the Seed Law

Labeler/Shipper Seller/Consignee	Kind Group	Tested No.Samp.	Complied No.Samp.	Did Not Comply No.Samp.	Discrepancies S	M	T
Advance Seed Co. Fulton, KY.	Veg.	2	1	1	1	-	-
Agway Inc. Syracuse, NY	Veg.	44	42	2	2	-	-
	Mix	8	6	2	1	2	-
	Ag	5	4	1	-	-	1
Suffolk Agway Coop. Riverhead,NY	Ag	2	1	1	-	-	1
Agway Garden Seed Dept. Elizabethtown,Pa.	Ag	1	1	-	-	-	-
	Mix	1	1	-	-	-	-
American Seed Co. New Haven, MI	Veg	16	15	1	1	-	-
	Fl	1	1	-	-	-	-
Applewood Seed Co. Lakewood,CO	Veg	12	12	-	-	-	-
	Fl	3	3	-	-	-	-
	VM	4	1	3	-	-	6
Campbell Grain & Seed Company West Salem, IL	Ag	1	-	1	-	-	2
Bandwagon Inc. Wilmington, MD	Kits	5	3	2	2	1	2
Bishop/Lebanon Corp. Lebanon, PA	Mix	3	-	3	4	1	-
W.Atlee Burpee Co., Philadelphia, PA	Veg	60	59	1	1	-	-
	Kits	3	3	-	-	-	-
	Fl.	14	14	-	-	-	-
Comstock-Ferre Co., Wethersfield, CT	Veg	13	12	1	-	-	1

Compliance of Seed Dealers to the Seed Law (Cont'd)

Labeler /Shipper Seller/Consignee	Kind Group	Tested No.Samp.	Compiled No.Samp.	Did Not Comply No.Samp.	Discrepancies S	M	T
Crawford Garden Supplies, Inc. Providence,RI	Ag	4	4				
	Veg	12	10	2	-	-	2
Crossman Seed Co., E. Rochester, NY	Veg	22	22	-	-	-	-
Derby Seed Co., Derby, CT	Ag	2	-	2	1	-	2
Druid Hill Park Seed Company, Baltimore, MD	Mix	1	-	1	-	1	-
Excel Seed Co., Downers Grove,IL	Fl	8	5	3	3	-	-
	Veg	7	7	-	-	-	-
Farm Bureau Assn., Greenfield, MA	Mix	5	1	4	2	-	2
Farm Bureau Assn., Waltham, MA	Mix	2	2	-	-	-	-
Ferry-Morse Seed Co., Fulton, KY	Fl	21	17	4	2	2	-
	Fl Mx	1	-	1	1	2	-
	Veg	29	29	-	-	-	-
Foster Seed & Feed Company, Alberta, Canada	Ag	1	-	1	-	-	1
Fredonia Seed Co., Fredonia, NY	Veg	32	32	-	-	-	-
	Fl	12	7	5	6	1	1
French Mill Outlet Woonsocket, RI	Fl	5	2	3	3	-	-
	Veg	4	3	1	1	-	-
Joseph Harris Co., Rochester, NY	Veg	16	15	1	1	-	-
	Fl	8	7	1	1	-	-
Chas. C. Hart Seed Company, Wethersfield,CT	Veg	65	60	5	4	1	-
	Fl	27	21	6	3	3	-
	Mix	2	2	-	-	-	-
	Ag	3	3	-	-	-	-
Helix Corp., Boulder,CO	Veg	3	3	-	-	-	-
Heritage House Prod., Medina, OH	Mix	1	-	1	-	-	1

Compliance of Seed Dealers to the Seed Law (Cont'd)

Labeler/Shipper Seller/Consignee	Kind Group	Tested No. Samp.	Compiled No. Samp.	Did Not Comply No. Samp.	Discrepancies S	M	T
Loft's Pedigreed Seed Company, Bound Brook, NJ	Fl	7	7	-	-	-	-
	Veg	33	33	-	-	-	-
	Ag	7	5	2	1	1	-
	Mix	32	14	18	7	6	13
J.D.Lyon, Inc. Cambridge, MA	Mix	7	1	6	1	3	4
Massachusetts Nurserymen's Assn., Boston, MA	Mix	5	3	2	2	-	-
Michael-Leonard Grant Park, IL	Veg.	13	13	-	-	-	-
North Amer. Plant Breeders, Princeton, IL	Ag	2	2	-	-	-	-
Northrup-King & Co., Minneapolis, MN	Fl	29	25	4	4	-	-
	Fl M	1	-	1	1	-	-
	Veg	32	30	2	1	1	-
Old Fox Chemical Co., E.Providence,RI	Mix	2	1	1	1	-	-
Page Seed Co., Greene, NY	Fl Mix	1	-	1	0	1	1
	Fl	23	14	9	3	1	6
	Veg	57	54	3	3	-	-
George W. Park Seed Company, Greenwood, SC	Veg	7	1	6	-	-	6
	Fl	3	-	3	1	-	3
J.B. Rice Seed Co., Downers Grove, IL	Veg	9	9	-	-	-	-
O.M. Scott & Sons, Marysville, OH	Ag	1	-	1	-	1	-
	Mix	12	9	3	-	2	1
Sears Roebuck & Co., Chicago, IL	Mix	2	1	1	1	-	-
	Ag	1	-	1	-	-	1
Arthur Sharp Farm Supply Company, Haverhill, MA	Mix	1	1	-	-	-	-
Stanford Seed Co., Buffalo, N.Y.	Ag	16	12	4	1	-	3
	Mix	17	9	8	2	3	11

Compliance of Seed Dealers to the Seed Law (Cont'd)

Labeler/Shipper Seller/Consignee	Kind Group	Tested No.Samp.	Compiled No.Samp.	Did Not Comply No.Samp.	Discrepancies S	M	T
Union Wadding Co., Pawtucket, RI	Kits	1	-	1	1	-	1
W.J. Unwin Ltd., Cambridge, England	Fl	9	8	1	1	-	-
	Veg	4	4	-	-	-	-
Vaughan-Mandeville, Downers Grove, IL	Fl	17	14	3	1	2	-
	Fl M	1	-	1	-	2	-
	Veg	42	40	2	1	1	-
Vaughan's Seed Co., Bound Brook, NJ	Ag	7	6	1	2	-	1
Walmsley's Garden Ctr., Chelmsford, MA	Mix	1	-	1	-	1	-
Whitney-Dick. Seeds, Buffalo, NY	Ag	9	8	1	1	-	-
	Mix	17	11	6	2	2	6
TOTALS		919	767	152	78	41	78

The following table shows the analyses of the points of discrepancy found in the labeling of seeds for the 1979 season.

Table 10

Analysis of Seed Law Discrepancies 1979

Official Seed Samples	Ag Sing.	Ag Mix.	Veg Seed	Veg Mix	Fl Seed	Fl Mix	Kits	Total
Collected	62	131	522	4	187	4	9	919
Discrepant	15	59	26	3	42	4	3	152
% Discrepant	24%	45%	4.9%	75%	22%	100%	33%	16.5%
Discrepancy Counts	18	85	26	6	46	8	7	196
Serious Found:								
Purity - wide display	2		1					
Germ. discrep.	1	22	5		13	2	2	45
Misrepresentation								0
Ommission of No. Weed Seed State.	2							2
Excessive Weed Seeds	1							1
Other Crop Seed Excessive		1						1
Short weight or short amt. excessively deficient			8		15		1	24
Labeled as treated but not			2					2
TOTALS	6	23	16	0	28	2	3	78

Analysis of Seed Law Discrepancies 1979

Official Seed Samples	Ag Single	Ag. Mix	Veg. Seed	Veg Mix	Fl Seed	Fl Mix	Kits	Total
Minor Discrepancies Found:								
Purity disparity	-	2			1			3
Germ. deficiency	1	19	1		5	1		27
Restricted noxious weed seeds found but not on excess of tolerance	0	1						1
Short weight or short count			2		2			4
Germ. test expired	1							1
Other crop seed wide disparity		1					1	2
Misrepresentation of seeds pictured						3		3
TOTAL	2	22	3	0	8	4	1	41
Technical Discrepancies Found:								
Kind/Var. name improper	4	2			1			7
Texture class improper		13						13
Omission of other info. (var name)	5	11	7	6	3		3	35
Mistakes in math	1	5						6
Information misleading		1			2			3
Info. incorrectly labeled (sytlized, var. name, small type, not clearly printed)		9			4	1		14
Total	10	41	7	6	10	1	3	78
GRAND TOTAL	19	84	26	6	47	8	7	197

SUMMARY 1979

The results of the inspection and analyses of the official seed samples for the year ending June 30, 1979 revealed 152 or 16.5% of the 834 official samples were at variance with at least one point of the Massachusetts Seed Law. In all there were 197 discrepancies, 78 Serious, 41 Minor and 78 Technical. The most prevalent discrepancy of the Serious category was germination deificiency. This discrepancy was also first in number for the Minor Category. The second most numerous for Serious was short count or short weight and for Minor the short count or short weight finding was also the second most prevalent. The most frequent problem in the Technical group was the omission of certain information required on the label, such as the variety name or date of test, information incorrectly given was second and giving an improper texture class for grass mixture was third.

By crop groups 100% of Flower Mixtures were mislabeled. Agricultural Seed Mixtures had the next worst record showing 45% of all samples with errors. Vegetable seeds had the best record with just 4.9% errors in labeling.

CONCLUSION

The laboratory year ending June 30, 1979, showed an upward trend in the sale of mislabeled seeds. Part of this is due to the fact that we have been paying more attention to the total planting value of the retailers packet, finding a lot of short weight packets. Packages also had missing information and considerable low quality seed showing germination below standard.

It follows that continued surveillance is needed on the part of the seed control officials to improve the market quality of seeds sold for planting purposes.

INSPECTION OF COMMERCIAL FERTILIZER AND AGRICULTURAL LIME PRODUCTS

1979

by the Fertilizer Staff
of the Feed, Seed, Fertilizer Laboratory
West Experiment Station, Amherst, Ma.

UNIVERSITY OF MASSACHUSETTS
COLLEGE OF FOOD & NATURAL RESOURCES
AGRICULTURAL EXPERIMENT STATION

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Brands Substantially Complying with Guarantees 1979

Manufacturer & Brand	Number of Samples Analyzed
Agrico Chemical Corp.	
Agrico Fert. 10-15-15..	1
Agrico Fert. 14-14-14..	1
Agrico Fert. 15-10-10..	1
Agrico Fert. 5-10-10..	1
Agrico Fert. 10-20-10..	1
Agrico Fert. 8-6-2....	1
Agrico Fert. 18-46-0...	3
Agrico Fert. 8-6-4....	1
Agrico Fert. 20-3-3 ...	1
Agrico Fert. 6-3-6.....	2
Agrico Fert. 5-10-10...	2
Agrico Fert. 10-10-10..	4
Agrico Fert. 10-6-4 ...	4
Agrico Fert. 5-10-5 ...	4
Agrico Fert. 15-8-12...	2
Agricultural Products Co.	
Super Turf King Lawn Food 10-6-4	1
Apco University Lawn Food 20-10-5	1
Apco Organic Lawn Fert. 5-4-0	1
Agway Incorporated	
Agway Plant Food 5-10-10	4
Agway Corn Starter 10-20-10	3
Agway Ferti Flow 15-8-12	4
Agway Turf Food Special 10-6-4	3
Agway Plant Food 10-10-10...	4
Agway Ferti-Flow 10-20-20...	1
Agway Garden Plant Food 5-10-5.....	3
Agway Sol-U-Green 20-20-20	1
Agway Ferti-Flow 14-14-14	1
Agway Evergreen Plant Food 8-4-4	1
Agway Grassroots 19-11-7	2
Agway Greenlawn Plus 20-5-7	1
Agway Prof. Fairway & Athletic Turf Fert 20-5-10	1
Agway Inc. (Cont'd)	
Agway Professional 12-4-8	1
Agway Greentree Turf Fert. 25-5-10	1
Agway Organic Lawn Food 8-1-0	1
Agway Alfa B 0-10-40	2
Agway Ferti-Flow 15-15-15	2
Agway Ferti-Flow 0-25-25 ..	2
Agway Grassroots 20-12-8...	2
Agway Ferti-Flow 15-8-12...	1
Agway Greenlawn Plus 21-5-7	3
Agway Greenlawn Plus 22-6-8	3
Atlas Fish Fertilizer Co.	
Atlas Fish Meal 10-5-0	1
Cadwell & Jones Incorporated	
Surge Plant Food for Vegetable & Flowers 5-10-10	5
C&J Hi-Organic Fert. 10-6-4	2
C&J Plant Food 5-10-5	1
C&J Specialty Fert. 10-10-10	2
Carefree Garden Products	
Mag Amp Indoor-Outdoor Plant Food 7-40-6	1
Chevron Chemical Corp.	
Ortho Tomato Food 6-18-6 ...	1
Ortho Fish Emulsion Fert. 5-1-1	1
Ortho Crabgrass Control Plus 18-3-6	1
Ortho Tomato Food 5-10-10...	1
Ortho Liquid Plant Fd 12-6-6	1
Ortho General Purpose Plant Food 12-6-6	1
Ortho Lawn Food 24-4-8.....	2
Ortho Rose Flower Fd 8-12-4	2
Ortho Pot & Planter Food 5-10-5	2
Ortho Upstart Root Stimulator 5-15-15	2
Clinton Nursery Products	
New Era Fish Emulsion 5-1-1	1
New Era Plant Fd 5-10-5 ...	1
New Era Plant Food 7-15-8..	1

Brands Substantially Complying with Guarantees 1979 (Cont'd)

Manufacturer & Brand	Number of Samples Analyzed
The Espoma Co.	
Holyytone For Acid Loving Plants 4-6-4	2
Faesy & Besthoff Inc.	
F&B Garden Fd 5-10-5	1
F&B Rose Food 8-10-4	1
The Fer-Mel Company	
Fer-Mel Premium Lawn Food 25-5-10	1
A.H. Hoffman Inc.	
Hoffman Rose Fd 6-10-8	1
Hoffman Tomato Fd 4-12-12	1
Hoffman Garden Fd 5-10-10	1
Hoffman Azalea Fd 5-10-7	1
The Hyponex Company	
Hyponex Outdoor Plant Food 15-5-5	1
Hyponex Veg. Garden Food 6-12-6	1
Hyponex House Plant Food 7-7-20	1
Hyponex House Plant Food All Purpose 5-10-5	1
Hyponex House Plant Food 6-6-6	1
Hyponex House Plant Food All Purpose 7-6-19	1
The Hytrous Corporation	
Africa Violet Liquid Fert. 4-12-4	1
Hytrous Liquid Fert. 5-10-5	1
Kerr-McGee Chemical Corp.	
KM Evergreen Food 6-8-6	3
KM Luxura Lawn Fd 23-5-5	2
KM Plant Food 8-0-16	1
KM Plant Food 0-10-30	1
KM Turf & Tree Fd 12-4-8	2
KM Plant Food 8-16-16	1
KM Plant Food 15-15-15	2
KM Premium Quality Fert. 10-10-10	3
KM Premium Quality Fert. 5-10-10	3
KM Lawn Food 10-6-4	2
KM Liberty Plant Food 5-10-5	1
KM Plant Food 5-10-5	4
KM Perk-Up Plant Fd 5-10-5	2
KM Plant Food 15-10-10	1
KM Nitroganic 5-4-0	3
Lebanon Chemical Corp.	
Greenview Treble Crab Grass Killer 16-8-4	4
Greenview Winter Green 10-18-10	2
Lebanon Agrinite 7-2-0	2
Gardenspot Lawn & Garden 5-10-5	2
Homestead Premium Garden 5-10-5	1
Green Gold Crabgrass Control 10-6-4	2
Lebanon Premium Crab Grass Killer 0-6-4	2
Lebanon Grain Fd 10-6-4	5
Garden Spot Lawn Tree Shrub Food 10-6-4	1
Lebanon Green Gold Lawn Fert. 26-4-6	3
Greenview Green Power 30-4-4	6
Lebanon Country Club 29-3-5	1
Lebanon Country Club 18-4-10	1
Greenskeeper Granular 20-4-10	2
Lebanon Country Club 12-4-8	1

Brands Substantially Complying with Guarantees 1979 (Cont'd)

Manufacturer & Brand	Number of Samples Analyzed
Lebanon Chemical Corp. (Cont'd)	
Lebanon Professional Tree Food 7-7-7	1
Lebanon A.C.R.E. 6-7-5	2
Lebanon Veg. Garden Food 5-10-10	3
Greenview Spring Tonic 20-4-4	4
Greenview Rose Mate 11-10-10	1
Greenview Crabicide Green 22-4-4	1
Greenview Garden Mate 10-20-10	1
Greenview Shrubs Mate 12-10-10	1
Greenview 2 Way Green Power 25-3-5	1
Greenview Winter Green 10-18-10	1
Lebanon Green Gold 20-8-8	1
Green Gold Feed & Weed 25-3-5	1
Greenview Winter Green 10-18-10	1
Leeming Division Pfizer Inc.	
House In Bloom Flowering Plant Food 1-2-1	1
House In Bloom Foliage Plant Food 1.2-1.8-1.2	1
House in Bloom Organic Plant Food 5-5-4	1
House in Bloom African Violet Food 1-3-1	1
House in Bloom All Purpose Plant Food 7-7-7	1
Lofts Pedigreed Seed Inc.	
Lofts Professional Lawn Food 25-5-10	1
Lofts Lawn Fd 24-4-8	2
Lofts Fall Feed Fert. for Turf 13-11-15	1
Mass. Nurserymen's Assn.	
MNA Country Gardener 5-10-5	3
Glorion All Purpose 5-10-5	1
Glorion 50% Organic 10-6-4	1
MNA Turfoganic 10-6-4	7
MNA Plantoganic 8-8-8	6
Glorion Lightweight 23-7-7	1
Glorion Lightweight 26-4-6	1
Glorion Deluxe 12-2-6	1
Glorion Deluxe Grass Fd 12-8-4	1
Glorion Lawn Fert. 20-10-5	1
MNA Roseoganic 7-8-6	1
MNA Broadleaf-O-Ganic 6-10-6	1
Minnesota Mining & Mfg. Co.	
Precise Timed Release Tomato Fd 6-18-6	1
Precise Timed Release Plant Food 12-6-6	1
Precise Timed Release African Violet Food 8-11-5	1
Precise Timed Release Shrub and Tree Food 20-10-10	1
Montgomery Bucks Farm Bureau	
Farm Bureau Plant Food 0-15-30	1
Nasseau Garden Inc.	
Glorion Rose Food 7-7-7	1
Glorion Vegetable Garden 5-10-10	1
Old Fox Cehmical Company	
Old Fox Acid Soil Plants 6-10-6	3
Old Fox Super Lawn Gro 15-4-8	4
Old Fox Fert. 10-10-10	6
Old Fox Fert. 5-10-10	1
Old Fox For Tobacco 6-3-6	2
Old Fox Turf Gran 10-6-4	5
Old Fox Estate Green 10-6-4	1
Old Fox Lawn Gro & Crab Control 10-6-4	1

Brands Substantially Complying with Guarantees 1979 (Cont'd)

Manufacturer & Brand	Number of Samples Analyzed
Old Fox Chemical Co. (Cont'd)	
Old Fox Fert. 5-10-10..	1
Old Fox Fert. 8-10-10..	1
Old Fox Fert. 12-12-12..	1
Old Fox Fert. 15-10-10..	1
Old Fox Fert. 8-16-16...	1
Old Fox Fluid Gro 10-8-10	1
Old Fox Turf Fd 15-9-6..	1
Old Fox Garden Fd 5-10-5	1
Robert B. Peters Co., Inc.	
Peters Special Soluble Plant Food 15-30-15..	1
Peters Special Soluble Plant Food 18-18-18..	1
Pro-Lawn Products Inc.	
Pro-Lawn Plus 22-6-8....	1
Pro-Lawn Plus 21-5-7 ...	1
Pro-Lawn Turf & Tree Granular 10-6-4	1
Rapid-Gro Corporation	
Rapid-Gro Plant Food 23-19-17	1
O.M. Scotts & Sons	
Summer Insect Control Plus Fert. 24-3-3....	1
Scotts Starter Fert Crabgrass Preventer 1-1-1	1
Scotts Spoon Fed Care 20-10-10	1
Scotts Crabgrass Preventer Fert. 20-6-6	1
Scotts Turf Builder 26-3-3	11
Scotts Super Turf Builder 36-4-4	5
Scotts Plus 2 Turf Builder 25-3-3	8
Scotts Turf Builder Plus Halts Crabgrass Preventer 22-3-3 ...	4
Scotts Lawn Insect Control Plus Fert. 28-6-4	2
Scotts Vegetable Garden Fert. 18-24-6	5
O.M. Scott & Sons (Cont'd)	
Scotts Starter Fertilizer With Crabgrass Control 16-21-5	2
Scotts Super Turf Builder 32-4-4	2
Stanford Seed Company	
Stanford Old English Lawn Food 26-4-6	1
Stanford Old English Pre Emergence Crabgrass Killer 10-6-4	1
Stern's Nurseries Incorporated	
Sterns Miracid Soil Aciderfier & Plant Food 30-10-10	1
Sterns Liquid Miracle Plant Food Drops 8-7-6	1
Sterns Miracle Gro Water Soluble Plant Food 15-30-15	1
Miracle Gro for Roses 18-24-16	1
Stim-U-Plant Incorporated	
African Violet Food 5-8-7	1
Swift Agricultural Chemical Corporation	
Vigoro Tomato Food 5-8-10	1
Vigoro Evergreen Fd 5-9-9	1
Vigoro Weed Control Plus Lawn Fert. 24-4-12	1
K-Gro Lqiuid Plant Fd 12-6-6	1
Vigoro All Purpose Fert. 6-10-4	2
Vigoro Vegetable Food 5-10-10	2
K-Mart Evergreen and Azalea Food 5-8-7	1
Unifeed Div. of Diamond Crystal Salt Company	
Unifeed Timed Release Leafy Plant Food 14-7-7...	1
Unifeed Time Release Flowering Plant Fd 10-20-5	1

Brands Substantially Complying with Guarantees 1979 (Cont'd)

Manufacturer & Brand	Number of Samples Analyzed	Manufacturer & Brand	Number of Samples Analyzed
U.S.S. Agric-Chemicals			
USS Vertagreen Lawn Food 25-5-10	1		
USS Vertagreen Power Prills 15-40-5	1		
USS Vertagreen Fert for Professional Turf 12-4-8	1		
USS Vertagreen TEE-Green Technical Turf Food 16-4-8	1		
USS Vertagreen Tournament Plus 19-5-9	1		
USS Vertagreen Turf & Tree Food 10-6-4	5		
Gold Bond Multi-Purpose Fert. 10-6-4	1		
USS Vertagreen Plant Food 15-10-5	4		
USS Vertagreen Rose Food 5-10-5	1		
USS Vertagreen Plant Food 5-10-10	2		
USS Vertagreen Plant Food 10-10-10	3		
Universal Chemical Company			
Electra Plant Food 5-10-3	1		

General Materials Samples 1979

For the year 1979 there were 61 samples analyzed for toxicology. There were 121 feeds, 137 forage samples and 400 silage samples completed. Miscellaneous samples numbered 93 along with 36 fertilizer samples. This constitutes a total of 883 general materials samples run during 1979.

Agricultural Lime Products 1979

Manufacturer & Brand	Calcium Oxide Guaranteed	Calcium Oxide Found	Magnesium Oxide Guar.	Magnesium Oxide Found
Allyndale Corporation				
Agricultural Lime: High Magnesium	30	30.5	20	18.2**
Agricultural Lawn Lime	30	30.4	20	18.2**
The Conklin Lime Company				
Conklin Lawn & Garden Limestone	34	39.7	1.5	7.7
Conklin Lawn & Garden Limestone	34	41.4	1.5	4.0
Lee Lime Corporation				
Lee Double Strength Hydrate Agricultural	41	43.1	28	28.2
Tobey Agra Hydrate	35	36.1	25	23.7
Lee Hi-Magnesium	30	30.5	20	20.6
Vermont Marble Company				
Lime & Garden Lime Store	50	50.8	1	0.42

**OUT OF TOLERANCE

Pulverized & Composted Animal Manures 1979

Manufacturer & Brand	Total Nitrogen	Total Phosphoric Acid	Water Soluble Potash
Kerr-McGee Chemical Corp.			
K-M Composted Sheep Manure 1-1-1	0.76	0.92	0.90
Robert N. McClellan & Sons Inc.			
Bovanure Dehydrated Cow Manure 2-1-2	2.3	2.0	2.5
Bovanure Deh. Cow Manure 2-1-2	1.6	1.7	1.3**
Organic Compost Corp.			
Fertilife Composted Cow Manure 1-1-1	0.82	0.86	0.85
Fertilife Composted Cow Manure 1-1-1	0.78	1.00	1.00
Pure Tex Cow Manure Co.			
Pure Tex Cow Manure 2-1-2	1.9	1.8	1.5
The Sewerage Commission		AVAILABLE POTASH	
Milwaukee Milorganite 6-2-0	6.1	2.3	
Milwaukee Milorganite 6-2-0	6.3	1.8	
Milwaukee Milorganite 6-2-0	6.0	1.8	
Milwaukee Milorganite 6-2-0	6.4	2.7	
Milwaukee Milorganite 6-2-0	6.7	2.2	
		TOTAL POTASH	
Southern Importers Inc.			
Southland Deh. Cow Manure 2-1-2	2.1	1.9	2.0
Just Right Distr.			
Just Right Cow Manure	1.9	1.8	1.5

**OUT OF TOLERANCE

Mixtures Showing Deficiencies Exceeding Tolerances

Manufacturer & Brand	Nitrogen	Available Phosphoric Acid	Water Soluble Potash
Agrico Chemical Company			
Agrico Fertilizer 0-20-20....		21.4	18.5**
Agrico Fertilizer 24-6-4	22.5**	4.9**	4.3
Agrico Fertilizer 15-15-15...	11.5**	14.1	14.6
Agrico Fertilizer 10-20-10...	8.7**	17.8**	10.8
Agrico Fertilizer 6-24-12 ...	5.0**	21.0**	13.2
Agrico Fertilizer 10-6-4	5.3**	6.4	6.5
Agrico Fertilizer 10-6-4	8.4**	5.7	4.0
Agrico Fertilizer 5-10-5	4.1**	7.8**	1.3**
Agrico Fertilizer 5-10-5	4.3	8.2**	5.0
Agrico Fertilizer 5-10-10 ...	4.7	8.9**	10.3
Agrico Fertilizer 5-10-10 ...	5.6	9.1	2.7**
Agrico Fertilizer 5-10-10 ...	4.1**	6.4**	6.8**
Agrico Fertilizer 10-10-10...	8.6**	9.2	10.0
Agrico Fertilizer 10-10-10 ...	6.8**	13.7	10.5
Agrico Fertilizer 10-20-20....	10.7	23.6	18.1**
Agrico Fertilizer 10-20-20...	8.7**	17.8**	21.4
Agricultural Products Co.			
Blue Ribbon Lawn & Garden Fertilizer 5-10-5.....	4.6	8.9**	4.9
Agway Incorporated			
Agway Alfa B 0-15-30		14.7	27.2**
Agway Ferti-Flow 5-20-20 ...	3.7**	14.0**	13.7**
Agway Ferti-Flow 5-20-20 ...	5.0	17.4**	20.0
Agway Ferti-Flow 5-20-20 ...	5.6	19.0	18.7**
Agway Ferti-Flow 10-20-20...	10.4	20.2	18.7**
Agway Ferti-Flow 10-20-20...	10.1	18.3**	21.0
Agway Ferti-Flow 10-20-20...	9.5	18.3**	21.1
Agway Alfa B 0-10-40		14.9***	35.6**
Agway Alfa B 0-10-40		12.5	28.4**
Agway Alfa B 0-10-40		11.0	37.8**
Cadwell & Jones Incorporated			
C&J Plant Food 5-10-5	3.5**	6.8**	5.3
Surge Lawn Food 12-8-8	11.0	6.6**	8.0
C&J Fertilizer 19-19-19.....	22.5	20.1	14.8**
Chevron Chemical Company			
Ortho Lawn Food 24-4-8	26.6	5.5	5.8**
Ortho Lawn Food 24-4-8	24.5	4.7	6.3**
Ortho Lawn Food 24-4-8	23.4	5.5	6.2**
Ortho Crabgrass Control Plus 18-3-6	24.8***	2.3**	5.0**

Mixtures Showing Deficiencies Exceeding Tolerances (Cont'd)

Manufacturer & Brand	Nitrogen	Available Phosphoric Acid	Water Soluble Potash
Ciba Geigy Corporation			
Earth Care Professional Plant Food 20-20-20	22.0	17.4**	19.5
Faesy & Besthoff Inc.			
Rhododendran Food 5-10-10	3.2**	11.3	14.6***
F&B Evergreen Food 7-7-7	5.2**	6.1	12.9***
F&B Lawn Food 10-6-4	9.7	8.6	2.4**
Kerr-McGee Chemical Corporation			
K-M Plant Food 5-10-5	5.9	8.9**	8.5
Perk Up Plant Food 5-10-5	4.5	7.8**	4.9
Perk Up Plant Food 5-10-5	4.3	7.3**	4.3
K-M Plant Food 15-8-12	14.6	10.0	9.8**
K-M Plant Food 15-8-12	16.5	9.3	10.7**
K-M Plant Food 5-20-20	5.5	21.0	18.7**
K-M Evergreen Food 6-8-6	7.9	9.5	4.7**
K-M Plant Food 10-20-20	9.6	18.7**	21.2
K-M Plant Food 10-20-20	9.7	21.6	17.0**
K-M Plant Food 20-10-10	18.3**	11.4	8.6**
K-M Turf & Tree Food 12-4-8 ..	13.0	6.5	6.6**
K-M Turf & Tree Food 12-4-8 ..	12.0	5.7	5.9**
Perk Up Lawn Food 10-6-4	10.0	4.4**	3.7
Lebanon Chemical Corporation			
Greenview Crabicide Green 22-4-4	20.6**	6.6	5.7
Greenview Tomato Mate 9-19-9..	12.9	20.8	7.9**
Loft's Pedigreed Seed Inc.			
Lofts Fall Weed & Feed 13-11-15	15.9	11.9	13.3**
Lofts Lawn Food 24-4-8	22.8**	4.2	9.7
Mass. Nurserymen's Assn.			
MNA Plant-O-Ganic 12-12-12....	8.5**	6.9**	8.2**
MNA Plant-O-Ganic 12-12-12....	11.6	9.0**	8.2**
MNA Turf-O-Ganic 10-6-4.....	7.3**	5.7	7.2
MNA Turf-O-Ganic 10-6-4	8.8**	4.9**	4.9
MNA Turf-O-Ganic 10-6-4	8.0**	10.6	6.2
MNA Turf-O-Ganic 10-6-4	10.8	8.0	10.0***
MNA Plant-O-Ganic 8-8-8	7.5	6.2**	9.0
MNA Plant-O-Ganic 8-8-8	7.8	5.5**	9.5
MNA Country Gardener 5-10-5...	4.8	8.3**	5.7
MNA Country Gardener 5-10-5 ..	5.5	7.6**	6.8

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Mixtures Showing Deficiencies Exceeding Tolerances (Cont'd)

Manufacturer & Brand	Nitrogen	Available Phosphoric Acid	Water Soluble Potash
Old Fox Chemical Company			
Old Fox Power Granular 30-3-10	28.9**	2.9	11.4
Old Fox Power Gran. 30-3-10	25.6**	7.7***	12.1
Old Fox Fert. 5-10-10.....	5.2	8.4**	10.4
Old Fox Evergreen Turf Food 20-4-8	22.2	5.0	4.1**
Old Fox Fert. 20-4-8.....	18.5**	4.6	7.4
Old Fox Garden Fd 5-10-5...	5.5	8.8**	11.6***
Old Fox Garden Fd 5-10-5...	6.3	8.0**	6.9
Old Fox Garden Fd 5-10-5...	6.5	8.6**	5.9
Old Fox Lawn Gro 10-6-4 ...	9.0**	4.9**	5.5
Old Fox Turf Food 10-6-4 ..	9.6	4.5**	3.9
Old Fox Turf Grass 10-6-4 ..	10.3	5.1**	4.4
Old Fox Turf Food 10-6-4 ...	7.0	8.8**	10.1***
Old Fox Fertilizer 10-10-10..	9.0**	10.8	11.1
Old Fox Velvet Gran 8-6-4 ..	7.8**	7.2	8.4***
Old Fox Velvet Green 8-6-4 ..	9.3	8.0	10.0***
Old Fox Fertilizer 8-10-10...	7.4	8.2**	12.2
Old Fox Super Turf Fd 15-9-6	15.1	8.4	11.3***
Old Fox Fert. 15-15-15	15.2	16.1	13.5**
Old Fox Fert. 15-10-10	13.1**	8.6**	11.4
Old Fox Fert. 4-16-20	4.8	26.0***	13.6**
Stanford Seed Company			
Stanford Old English Soil Food 12-4-8	11.0	6.7	6.7**
Swift Agricultural Chemical Co.			
Vigoro Crabgrass Preventer Plus Lawn Fert. 22-3-11...	25.9	5.9	9.7**
Vigoro Lawn Fert. 24-4-12...	21.7**	4.6	14.0
Vigoro Rose Food 6-9-5	5.0**	7.1**	5.1
Swift Lawn Weeder & Feeder 10-6-4	8.7**	5.7	4.1
USS Agric-Chemicals			
Gold Bond Multi-Purpose Fert. 10-6-4	9.8	7.6	10.4***
USS Vertagreen Power Prills 14-14-14..	15.0	17.1	12.4**
USS Vertagreen Fert. for Professional Turf 12-4-8	10.7**	5.7	6.5**
Universal Chemical Company			
Electra Plant Food 5-10-3..	4.6	8.3**	3.1

**OUT OF TOLERANCE
***EXCEEDING TOLERANCE

Nitrogen, Phosphate & Potash Products 1979

Manufacturer & Brand	Nitrogen	Available Phosphoric Acid	Total Phosphoric Acid	Water Soluble Potash
Agrico Chemical Company				
Agrico Urea 46-0-0.....	46.3			
Agrico Urea 46-0-0	46.2			
Agrico Urea 46-0-0	46.1			
Agrico Urea 46-0-0	45.8			
Agrico Fertilizer 0-20-0		17.7**		
Agrico Fert. 0-20-0		20.6		
Agrico Fert. 0-20-0.....		19.1		
Agrico Fert. 0-20-0		20.5		
Agrico TripleSuper Phosphate 0-46-0....		45.9		
Agrico FErt. 0-0-50				41.0**
Agway Incorporated				
Agway Di-Ammonium Phosphate 18-46-0.....	18.0	46.4		
Agway Sulf + Po-Mag 0-0-22				22.1
Agway Muriate of Potash 0-0-60				59.4
Agway Muriate of Potash 0-0-60				59.5
Agway Ferti-Flow 0-46-0....		46.9		
Agway Triple Superphosphate 0-46-0		46.4		
Agway 20 Phos 0-20-0		20.4		
Agway Urea 46-0-0	46.3			
Duval Corp. (Potash Div.)				
Duval Sul-Po-Mag 0-0-22 ...				21.8
Hercules Inc.				
Hercules Nitrofoam M 38-0-0	37.9			
J.M.C.Corporation				
Muriate of Potash 0-0-61...				61.1
Kerr-McGee Chemical Corp.				
K-M Superphosphate 0-20-0		20.8		
K-M Mruiate of Potash 0-0-61				60.7
K-M Super Phosphate 0-20-0		20.4		
K-M Super Phosphate 0-20-0		19.6		
K-M Bone Meal 1-12-0	4.76	17.2		
K-M Diammonium Phosphate 18-46-0....	18.2	45.7		
K-M Sulfate of Ammonia 21-0-0	20.4			
K-M Bone Meal 1-12-0	0.28**	20.79		

Nitrogen, Phosphate, & Potash Products 1979 (Cont'd)

Manufacturer & Brand	Nitrogen	Available Phosphoric Acid	Total Phosphoric Acid	Water Soluble Potash
Lebanon Chemical Corporation				
Lebanon Conc. Super Phosphate 0-46-0		46.1		
Mass. Nurserymen's Assn.				
MNA Bone Meal 1-23-0	0.31**	20.3**	31.1	
Old Fox Chemical Company				
Old Fox Fert. 0-20-0.....		21.6		
Old Fox Fert. 0-46-0		46.3		
Old Fox Fert. 0-0-60				60.0
Sudbury Laboratories				
Sudbury Unit X Tailor Made Fert. Nit. 44-0-0	46.5			
Sudbury Unit Z Tailor Made Fert. Potash 0-0-44				48.5
Sudbury Unit Y Tailor Made Fert. Phosphorus		45.3		
USS-Agri Chemicals				
USS Ammonium Nitrate 33.5-0-0	34.1			

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